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ABSTRACT

Part III, Volume V, Part A of Project NECESSITIES consists of 6 units intended for 2nd-grade American Indian (including Eskimo) children. Activities include music, pantomime, and drama to allow the student and teacher to develop their own classroom version of the story of creation so that the student learns the difference between fact and truth. Supplementary materials ("Long Ago When There Was Darkness and All Things Were Yet to Be Made" and "Animals, Climate and Terrain") needed to teach these social studies units are appended. Part B, Using the Land, is intended for 3rd-grade children and consists of 3 units. The units are designed to provide the Indian child with a knowledge of elementary economic concepts which are tied directly to the land as the primary economic resource for meeting man's needs. Supplementary material needed to teach Part B is "Egegik and Shageluk" which is appended. In Parts A and B, each set of classroom activities which precedes the instructional narratives is meant to provide a reference for several days of teaching. Each includes a short overview of the activity itself and indicates the materials and equipment needed to carry out the activity. (LS)

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TEACHING MATERIALS FOR
SECOND AND THIRD
GRADES

PROJECT NECESSITIES

PHASE III

VOLUME V

July 1970

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VOLUME V

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FOREWORD

The following second and third grade materials were prepared in draft form during the winter and spring of 1970 by the Project staff. In June, at a Project NECESSITIES Curriculum Practicum teachers from both Bureau and Public schools serving Indian children participated in refining the work of the staff.

The following people contributed much to the work you will find in this teacher's edition:

Catherine Collier, Second grade teacher at the Nazlini boarding School on the Navajo Reservation, worked exceptionally hard on the second grade teacher's guide and much of her effort which extended two weeks beyond the Practicum is reflected in Part A of this volume.

Allen Coulter, teacher aide at the Navajo Community College, Many Farms, Arizona. He assisted in the final development of grade 3 teacher's guide.

Project Staff who worked on this materials included Dick Ruopp, Project Director and Candace Kovacic, Curriculum Specialist in Economics. Jason Chee, Project Artist, was responsible for the illustrations and lettering on the three booklets: Napi, Animals, Climate and Terrain, and Egegik and Shageluk.

The material in this volume may be used in other grades than those indicated if the students haven't had prior experience with the content.

Please feel free to adapt the material to your own local situation and student needs.

A NOTE ABOUT SUPPLEMENTARY MATERIALS NEEDED TO TEACH THESE TWO YEARS

A. SECOND GRADE

Project Materials

1. Napi booklet (one for each student) "Long ago when there was darkness..."
2. Animals, Climate and Terrain booklet (one for each student)

A tape of the Napi booklet with two separate narrations and a set of colored slides can be obtained by writing:

Mr. Pat Ercolin
Instructional Service Center
Box 66
Brigham City, Utah 84302

B. THIRD GRADE

Project Materials

Egegik and Shageluk booklet (one for each student)

C. FILMS

All of the films listed available free:

Bureau-wide Film Service
P. O. Box 66
Brigham City, Utah 84302

VOLUME V

SECOND GRADE: MAKING THE WORLD

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INTRODUCTION

The world to each of us is that place we are, contained by the near horizon.

During the work day, that place is contained by the four walls of the classroom.

Of course, we know in our heads that more is out there: other places like this one, and some places very different. And we know from our trips in air-planes, and from watching T.V. shots of the earth by moon-bound astronauts that our place is a tiny spot located on a slightly squashed ball surrounded by black emptiness.

Still, our little day-to-day world is flat and limited. The sun "rises" and "sets" as it "goes round the earth." Even though we know differently, in our heads.

The second grade Indian or native Alaskan child probably hasn't seen the earth from an airplane, seen lots of other places (although he may have an astronaut's eye-view of the planet.)

For that boy or girl who sits in front of you, the world is a little and very real place: the village, the distant mountains, vast ice-floes, a nearby mesa, rolling plains, or red-dust desert.

Perhaps that child has been to Gallup, or Pierre, or Anchorage, but more likely not.

Certainly the world is flat (is there an edge to fall off somewhere?). Certainly the sun does move across the sky. Certainly, no place is more real, and perhaps, despite the many stories dimly-heard, every other place and all other people are basically the same.

Your task this year is to take the child from where he is, from what he knows, and help him explore the world beyond the walls of the classroom, past the seen horizon. This is not an easy job, and it is certainly more than making maps and looking at pictures of other places. Your students must be able to conceptualize the world, not as an abstract book-learned thing, but as a vital and pungent reality almost too big for the mind to gasp.

Remember, men have been fascinated and have struggled with understanding the world - what it is and where it came from - since the beginning of history. Men have sung, made stories, painted pictures, thought, written, and argued about the world for a long, long time. Some of the truly great stories have been serious attempts to answer the question about creation: the Babylonian Creation Story, the Greek mythology, the Genesis account in the Bible. When man turned from story to science to account for his surroundings individual names entered the lists: Pythagoras, Ptolemy, Copernicus, Galileo.

It is interesting to not that the solar explosion hypothesis (an hypothesis is a story with a high probability) which postulates that the world and other planets came from an explosion of the sun, has been replaced by a new version of the nebular hypothesis. This hypothesis says that the world and sun formed at the same time from "spacedust" and only slowly did the sun "ignite" (and on the sixth day, God said, "Let their be light!")

In any event, all the answers are not in on creation, indeed some of the questions have yet to be asked.

And the world still is a subject to excite the imagination. The child, the one in front of you, has to be led through the steps to understand the world as we understand it (however incomplete that may be). It's the same world that our cave-dwelling forebears looked out on. Only man's "knowledge", his perception of the world has changed.

To understand the world, the child must "make" it.

A NOTE ABOUT THE USE OF THE OUTLINE OF CLASSROOM ACTIVITIES

Each set of Outlines or Classroom Activities which precedes the Instructional Narratives is meant to provide you with a quick reference for several days of teaching. Each includes a short overview of the activity itself and indicates the materials and equipment which will be needed to carry out the activity. A suggested only length of time is included. Following the set of Outlines is a blank set of Outline pages which you can use as you revise the Instructional Narratives to meet your own situation, the needs of your own particular students.

A NOTE TO THE TEACHER ABOUT THE USE OF THE INSTRUCTIONAL NARRATIVES

The narratives which follow the Outlines are not strait-jackets!

On the contrary, the narrative of classroom activities has specifically been written in the past tense so that you can "look in" on another teacher's classroom and see the way she choses to teach these materials.

There is no way to replace the critical role that teacher and student imagination play in making the classroom a place of real learning.

You may find that some activity modules will take two or three times as long as suggested. Others may take less time. You may also find that some of the activities need to be revised to meet the specific needs of your students: their cultural background, their individual capacities, and their previous learning experience.

UNIT I: HOW DID THE WORLD GET HERE?

This four to six week unit functions as a warm-up and pre-test. The principal source of content is the student: What does he know about the world? How does he think the world came to be? In story, music, pantomime, drama - students and teacher develop their own classroom version of the story of creation and students learning the difference between fact and truth.

UNIT TITLE: Making the World

LEVEL: Second Grade

UNIT TITLE: How Did the World Get Here?

SUGGESTED LENGTH: 4-6 Weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
1A	1	Children tell what things they know about the world, and teacher lists them on pieces of newsprint to hang around the room.	Newsprint Magic marker (black)		10
1B	1-2	Children pick out what they consider the most important things they have listed, discuss why they are important. Teacher circles these items on the list. If appropriate class goes on "exploration"	Magic marker (Red)		10
1C	1-2	Children draw or paint pictures of the important items they have picked out and teacher prints out final list-one statement per sheet of newsprint and tapes pictures to statement.	Newsprint Magic maker (Blue) Crayons, or paints.		11

[project NECESSITIES]

UNIT TITLE: Making The World

UNIT TITLE How did the World Get Here?

LEVEL: Second Grade

SUGGESTED LENGTH: 4-6 Weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
1D	1	If there are statements that the children are not sure about, or teacher does not thing are correct, she puts a question mark on that sheet. Children identify statements in teams, by reading and/or telling what the picture is about.	Magic Marker (Red)		11
7 2A	2-3	Children tell how they think the world got here, and teacher again lists items on newsprint.	Newsprint Magic Marker (Black)		11
2B	3-5	Teacher suggests class make their own story of creation to answer questions: What was there before the world? Who made it? where did it come from? Was it always like it is? What are the most important things in the world-earth, air, fire, water? What does each do? Where did each come from?			13

TITLE: Making The World
LEVEL: Second Grade

UNIT TITLE: How did the World Get Here?
SUGGESTED LENGTH: 4-6 Weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
2 D	2-3	Pass out copies of Napi to each student so that they can see the pictures. The class makes a book like Napi of their own story. Students work in pairs to draw pictures of their own story.	Napi booklet (PN)		14
3 A	5	Students make their story into a playlet with songs, dances, pantomime and narrative.			15
3 B.	2	Students present their story to several lower grades as the final event in Unit I.			16

[illegible]

TITLE: Making the World UNIT TITLE: How did the world get here?

LEVEL: Second Grade SUGGESTED LENGTH: 4-6 Weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
2C	1	After the children do their own creation story, the teacher either reads Napi (Long ago when there was darkness, or shows slides and plays tapes she has gotten from I.S.C. (page iii Part A) and let children ask questions.		Tape Rec. TR Slides proj.	16
9 2C	2-3	Visitors chosen by teacher come and tell or read various stories of creation: local tribal stories, other Indian stories, the account in Genesis, an African story, her version of the Nebular Hypothesis taken from The Universe, McGraw - Hill			14
2D	2-3	The students go back over their own creation story, changing and incorporating what other stories have triggered in their minds.			16

MAKING THE WORLD

UNIT I: HOW DID THE WORLD GET HERE?

CLASSROOM NARRATIVES

ACTIVITY ONE: WHAT DO WE KNOW ABOUT THE WORLD?

What do your children know about the world and how do they think it was created?

That question is what this activity seeks to answer.

Most children know something about the world. So begin by listing all the things they can think of that they know on the board or on newsprint that can be hung around the room.

Then have them pick out those things they have listed which the whole class agrees are the most important things. They should be asked why what they have picked is important. You should refrain from correcting their statements - this is a pre-test.

If there are things that you think they have left out that can be seen outside the school building, take the class on a walk. This will be a good time to practice asking questions rather than giving answers.

After they have picked the things they consider the most important, you can have them draw or paint pictures to go with the statements. This will be particularly helpful to those children who don't know how to read.

Write the statements the children have picked as most important about the world at the top of a separate sheet of newsprint for each, and tape the picture's in the space below the appropriate statement.

What kind of statements are you likely to get?

"The world is round." (How do you know?)

"Mountains are big" (What else is big? What is small?)

"The world is made of rocks." (What about rivers and lakes?)

"If there wasn't a sun, it would be night all the time."

(What makes the moon shine? What would it be like to live in darkness all the time?)

"It has to rain, or plants wouldn't grow" (What happens when it rains too much?)

Probably something like these, and many more. Each statement provides an opportunity for asking questions.

After the class has completed its drawings, have children try to tell what the statement is from seeing only the pictures. When they are fairly successful at this, divide the class into two teams. Have one team send a pair of teammates up, blindfold one, and then have the other team captain point at a picture. Have the team member who can see describe the picture, until blindfolded teammate can identify the statement. Keep track of time if you think competition would be useful between the teams.

This will also give you the opportunity to keep track of individual performance, and get a sense of the overall class ability.

ACTIVITY TWO

MAKING A CREATION STORY

When the children have completed Activity One they will have explored what they know about the world.

Now it is time to move to the imaginative exercise of making a creation story.

Ask:

> How do you think the world got here?

Again list the responses on newsprint. Some students are likely to give the Biblical account, others may tell what they have heard of their own tribal stories of creation from parents or grandparents. It is important to let each story stand as equal to other stories, no matter how strange or "wrong" they may seem to you.

After the children have finished telling what stories of creation they know, suggest that it would be good for the class to make its own story of creation:

> What was there before the world was here?
> Who made the world?
> Where did the world come from?
> What are the most important things in the world?
> (Earth? Air? Fire? Water?)
> What does each do? Where did each come from?

How was the world built?

Has the world always been the way it is today?

With these kinds of questions as guides, the children will be able to develop their own story. Encourage imagination. If some child wants monsters in the world - then monsters.

After completing a "draft" version of a class creation story, either read Napi or use the slides and taped narration of the booklet (see page iii Part A).

Ask:

How is this story different from the class story?

Does this story tell the whole story of creation?

Invite some member of the tribe to come tell or read one or more stories of how the world, or animals, or man were created. Have a minister come in to read a simplified version of the Genesis accounts. Find other culture's creation stories: Greek legends, African bush, oriental. Spend as much time as the children't interest will allow. Get hold of the book, The Universe, (McGraw-Hill) and work up you own versions of the solar explosion, and the recent favored nebular hypothesis, (hypothesis is a story).

Now, review with the students their class story and ask them if they want to change it, or incorporate some of the things they have heard in other stories.

When they have completed a version which pleases the majority of the class, pass out copies of Napi to each child so they can look over the pictures and see the book format. Suggest that if they draw pictures of their own story they can make a book also. Use a large scrapbook and assign two-student teams to draw the different pictures to illustrate the story. If you have students who can letter well, they can do that portion of the task; if not, letter the story picture by picture and have students either copy or trace the lettering for the book.

When this is complete, tell students that it is time to put their story into the form of a play: with singing, dance, pantomime, reading, narration, acting--just as their great-grandfathers would have done to tell of a special hunt, or to relate one of the great creation stories passed down by tribal tradition.

This is the point in the unit when you should try to help your students understand the difference between a fact and truth (although the problem may arise earlier) so that they can understand why there are so many different stories of creation.

Present a little pantomime of your own. Indicate that you have lost something that is important to you, and it makes you very sad. Then ask the class to say what you are doing. After they have stated the "fact," ask them to make a story about an imaginary child who has lost something. Then ask if the story is factual: "No, because the child isn't real." "But isn't it a story that tells the truth about how someone feels when they have lost something important to them?"

You can go on from here with other statements of fact: apples are red, dogs eat bones, etc., and show how when these are converted to stories that try to explain why the apple is red, or why dogs eat bones that they contain truth although they may not be factual.

Thus it is with the stories of creation. A good example of this is contained in the two Biblical accounts of creation that come from different parts of Palestine at very different times. The first creation story, the one that tells about the creation of the earth, was written only several hundred years before Christ and contains the truth about the story teller's sense of the magnificence of creation, and man's role as in relationship to the world. The second story, that of Adam and Eve, is much earlier, comes from the southern desert, and seeks to answer the question, "If God is good, why do men suffer?" The truth it carries is that man himself is responsible for the troubles he has, for it was man's "choice" to leave the perfect garden of Eden.

The students should therefore stress the things they feel are true in their own class story as they develop it into a dramatic form.

Arrange for a presentation to several first grade classes. Have a "test run" with those visitors who came to read to the class.

This unit closes with the actual presentation of the class creation story.

Since this was a pre-test activity, you will want to keep notes on how individuals did, and how the class functioned as a whole. The final unit (Unit VII) of the year will be a review of the creation story and its amendment based on what the student's have learned during the year.

UNIT II: WHERE IN THE WORLD ARE YOU?

This four to six week unit reviews and extends map/location skills. It emphasizes the relationship between the "real" world and two dimensional representations of this reality. Children learn that a code can be used to stand for real experience, and they learn to decipher this "map code."

[illegible]

TITLE: Making the World

UNIT TITLE: Unit II: Where In The World Are You?

LEVEL: Second Grade

SUGGESTED LENGTH: 4-6 Weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
1A	2	Teacher places various maps around the room and allows children to explore. Class divided into four teams and mark their location on six of the different maps.	4 different color magic markers (red, blue, green, black) 2 world globes of different sizes 2-4 world maps 1 map of western hemisphere 1 regular map of United States 1 relief map U.S. or locale 2 different scal maps of reservation 1 map of school		21
1B	2	Class in four teams places cut-out desks models (rectangles) on white paper on outline of classroom.	4 outlines of classroom to scale 1 inch to 1 foot cutouts of desks to scale on white paper pencils or pens		22
1C	1	Teams look at scale classroom with "desks" taped lying on floor through tube while standing on desk and then draw a map of what they see.	4 cardboard tubes (toilet paper) paper and pencils or pens		22

Project NECESSITIES

TITLE: Making the World
UNIT TITLE: Unit II: Where In The World Are You?
LEVEL: Second Grade
SUGGESTED LENGTH: 4-6 Weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
2A	4-8	Map Games: map jig-saw puzzles, Chinese sphere puzzle, atlases and road maps with little cars, state matching, paper mache globes for painting.	5 or 6 map jig-saw puzzles 2 Chinese sphere puzzles 10 state road maps 10 small cars 4 sets state cutouts (yours and neighboring) with matching cards to scale 4 paper mache globes and water colors	—	23
⑲ 2B	5-7	Students play variations of "Secret Trail Game," and continue to do so through week during reading, arithmetic, and English periods.	paper pencils or pens	—	23
3A	5-7	Students make their own "Secret Trail Maps" in teams through several versions.		—	25

TITLE: Making the World

UNIT TITLE: Unit II Where in The World Are You?

LEVEL: Second Grade

SUGGESTED LENGTH: 4-5 Weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
3B	2	Students play map relay race twice.	1 map for Map Relay Race for each student 5-7 different color crayons or magic markers		26
20 3C	1	Students hide treasure and draw map for teacher to follow.			26

UNIT II: WHERE IN THE WORLD ARE YOU?

ACTIVITY ONE: WHAT ARE MAPS?

Being able to get from here to there is a very important skill. A sense of location is a critical sense.

Set the scene for this unit by placing around the room: at least two globes of different sizes, maps of the world (different projections), a map of the western hemisphere, a map of the United States, a relief map of the country, a relief map of some portion of the country (preferably your area), several maps of the reservation on different scales, and a rough map of school building and grounds.

Find out what the children already know about maps:

Ask:

What is this?
What are these?
How are they alike?
How are they different?
What are they used for?

Give the students time to wander around looking and touching. Circulate and ask questions. Then call the class back together and ask the children: what do these things have in common? How are they alike?

Responses are likely to be: they are all pictures of where things are; they show how to get somewhere; they show places in this country and the world.

The class is divided into four teams, and each team given six markers (piece of masking tape doubled over so only a bit of sticky is exposed) with the team name written on it (red, blue, green, black). The object is to have each team in turn, locate themselves on any six of the different maps.

Next, have the same teams arrange a piece of paper cut to scale size desks on a piece of cardboard that has the outline of the classroom drawn on it to scale. The name of the student whose desk they locate should be written on the piece of paper. Ask how they would locate the desk exactly (concept of scale), then have them indicate where doors and windows would be.

Finally, have each student of each team stand on a desk (or chair, or ladder) and look at the scale room with desks taped into position through a cardboard tube (a toilet paper tube is about right) and have everyone draw a map of what they see. You can ask how they think the maps around the room are made (a camera is like a tube, and an airplane is like standing on a desk).

ACTIVITY TWO: MAPPING GAMES

During a reading period, when small groups can have some free time, let the students play various games of location using jigsaw puzzles of the state, the United States, and the world (if you have a carpenter friend with a jigsaw have some puzzles of the reservation made up). You can also use a Chinese wooden sphere puzzle on which you have drawn a rough world map, several atlases and road maps with little cars for students to "drive" down a predetermined route (for example: leave Tuba City on Highway 89, go west 27 miles, and turn south on dirt road for 17 miles, then west again for 31 miles. Where are you? You can make silhouettes of your state and each adjacent state with matching pictures of the state in smaller scale for pairs of students to work out. Also, coat a balloon with paper mache (white paper strips) so that there are several homemade globes which the students can paint on with water colors.

Secret Trail Game. Divide the class into four teams and have them select captains. Give each captain a map of one-quarter of the room. On it is shown a "secret trail" around the room which the team has to follow in order to find the other three map pieces. When all the pieces are found a team has to put them together correctly and bring the map to you. Then mark the location of a "treasure" on it (balloons, candy, gum, etc.). If you want, you can have the best treasure for the team that comes to you first, etc.

Throughout the week during reading periods, students should be allowed to play the games and "study" the maps. During arithmetic you can write answers to problems on cards and hide them in simple places. A student can either work the problem out, or follow a set of directions, or a map, and find the answer. (For example: go to the sink, now turn left and walk five steps. Stop. Look on page 56 of the book on the shelf).

Use the English period to have children play two direction games: 1) A student is blindfolded and whoever is "it" directs him to a spot in the room using only verbal directions, and 2) "It" directs another student to a spot in the room by reading directions from a map of the "trail" while behind a screen, or in a corner. This can also be played outside.

ACTIVITY THREE: MAKING MAPS

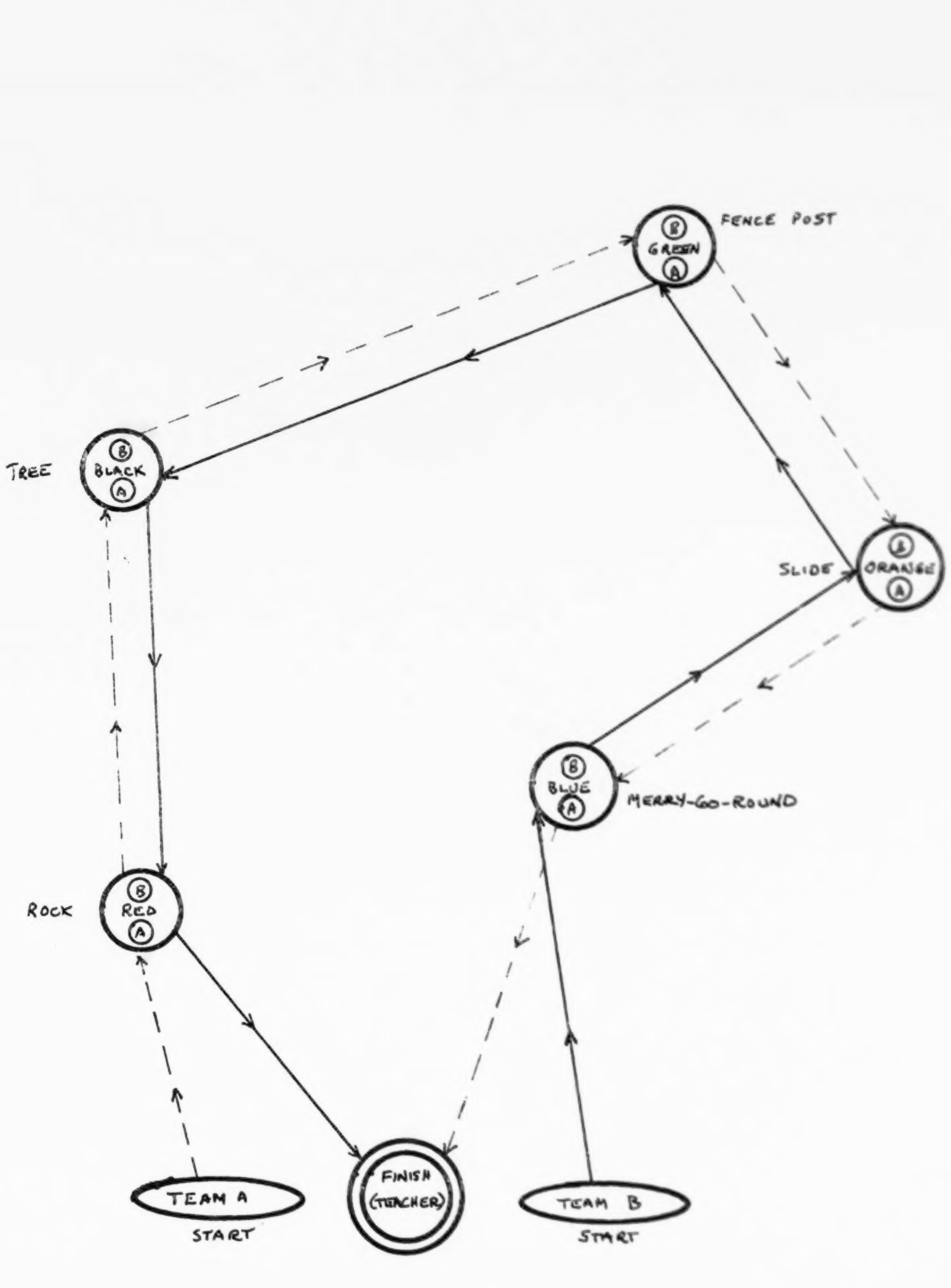
Have teams make their own maps for the "Secret Trail Game". Each team is given a treasure to hide from the other teams and told to draw a map of its location in the room, school, or school grounds. Fold the maps and put into a hat, or jar, Team captains draw out a map that their teams will use to find the treasurer. Time each group as it looks for the treasure.

When this is completed, divide the class into new teams of four or five players each. Give each team five objects to hide and draw five maps of their location outside the classroom (playground at recess). The object must be at least one hundred steps from the starting point. A child is chosen from each team, gets a map from another team and goes to find the object, leaving the starting points at the same time. The first child back with the object (identified by a piece of tape or thread) wins 5 points for the team who drew the map and 5 points for his own team. The second child back wins 4 points, and so on.

Prepare a list of things for students to find outside, rocks of a certain size, sticks of a certain length or shape, a leaf from a plant or tree. Each student is given a different item to bring back, and a piece of paper to draw a map of the route from the object back to the starting point. Give each student a marble to leave where he found his object. When everyone is back, have students exchange maps and follow the one they now have. To be successful the student following the map must bring back the marble. You can let hime keep it.

Map Relay Race. The class goes to an area that you have selected and mapped (ditto) earlier with a copy for each student. Divide the class into fairly even teams (numbers and ability). There should be five or six "check" points along the course. Station a member of each team at each check point with a different colored crayon for each point. The remainder of the team lines up on each side of you. Give the first student in each line a copy of the map and start them off to the first check point on each side (for example, if there are six check points, one team circles left the check point 1, the 2, then 3, etc. the other to the right to checkpoint 6, then 5, then 4, etc.) At each check point the student has a map marked with an x in the circle of the check point, and takes his teammates place, who then goes on to the next check point and does the same thing. An example of a map for the Map Relay Race Appears on the next page.

The culminating activity for this unit is as follows: let the class decide on a treasure to hide from you. They should then draw a fairly complex map for you to follow to find the treasure. Good luck!


FENCE POST
B
GREEN
A
TREE
B
BLACK
A
SLIDE
B
ORANGE
A
B
BLUE
A
MERRY-GO-ROUND
ROCK
B
RED
A
TEAM A
START
FINISH
(TEACHER)
TEAM B
START

EXAMPLE OF MAP FOR MAP RELAY RACE

UNIT III: ANIMALS, CLIMATE AND TERRAIN

The three major elements in the environment form this twelve to fourteen week unit, with approximately one-third of the time spent on each. How do climate and terrain interact and what affect do they have on animals?

[project NEC. SITIES]

TITLE: Making The World

UNIT TITLE: Unit III: Animals, Climate and Terrain

LEVEL: Second Grade

SUGGESTED LENGTH: 12-14 Weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
1A	3	Use Napi to begin discussion of why animals live where they do.	Napi (PN)		32
1B	5	Students match animals to place descriptions prepared by the teacher	Paper 3x5 cards magic marker		32
1C	5	Students make a detailed physical environment for the world they created in Unit I and pick animals to live in their world	Paper 3x5 cards magic marker		33

TITLE: [illegible] The World
UNIT TITLE: Unit III. Animals, Climate and Terrain
LEVEL: Second Grade
SUGGESTED LENGTH: 12-14 Weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
1D	5	Students pick animals they would like to be and say where they would like to live and why.		—	33
2A	10	Students begin with moisture on a cold can of pop and build a picture of evaporation through the water cycle	can of pop 2 plants 1 large open mouth can tea-kettle glass 5 magnifying glasses	—	34
2B	5	Water cycle related to climate discussion of various climates, benefits and liabilities		—	35

project NE[illegible]SSITIES

TITLE: Making The World

UNIT TITLE: Unit III: Animals, Climate and Terrain

LEVEL: Second Grade

SUGGESTED LENGTH: 12-14 Weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
2C	5	Pass out Animals, Climate and Terrain booklet to review interaction between animals and climate.	Animals, Climate and Terrain (PN)		35
3A	15-20	Earth, humus, terrain features are considered in detail. Field trips are taken and earth samples collected.			37

UNIT III: ANIMALS, CLIMATE AND TERRAIN

ACTIVITY ONE: ANIMALS

Your students have now made the world and learned something about how to map it.

The next step is to teach them how the environment around living things affect how and where they live.

Read Napi again.

Ask:

"What happened to Napi's animals?"

"Why?"

After having discussed why the animals in Napi were unhappy, ask the students if they can think of examples of animals who live near the students who couldn't live elsewhere. Do they know of animals who couldn't live happily in your area?

Arrange on the floor of the center of the room a series of place descriptions written on paper with simple pictures: Mountains, snowfields, deserts, plains, forests, rivers, marsh, beach, lakes, oceans. On separate 3x5 cards lits 30 or 40 different animals, fish, and birds that will somewhat familiar to the children. Calling up one child at a time, ask him to place the animal on a place where the animal could live happily. Discuss how climate and terrain affect each of the animals, and how the animal is "built" for the place he lives in.

Now have the children create a detailed physical environment for the world they created in Unit I. Have them make place descriptions, pick animals to live in their world, and place them where they would be happy. Tell them they are Napi to the animals they are placing. Allow them to confront each other with comments about placement.

See if you can draw them to some generalizations about where animals live: specific animals live in specific places because of the way the land is, and because of the weather.

Now have each child pick an animal he would like to be, and have him tell where he would like to live, and what they place would be like if he were to live happily. Ask them what would bother them most if they were moved to a strange and different place, with a different kind of climate. What would they do first in a new place: Where would they find what they needed for food, water, and shelter? Does the world they have created have everything that they would need?

ACTIVITY TWO: CLIMATE

Spend some time discussing the importance of water - too much or too little. Where does water come from? What are the different aspects of climate that animals have to adapt to: rain, snow, ice, cold, heat dryness, wind, sun, storms, lightning, thunder, dust storms, mud. While all of these things cause problems for man, without them there would be no water, and animals couldn't live.

Bring a cold can of pop into the room, dry it, and then ask students where the little water drops are coming from that they can see forming on the can. Have them breath into cupped hands and rub their hands together. Ask them what they feel. Have them breath on a mirror. Ask them what they see.

Bring two inexpensive plants into the room, water one and leave the other without water. Ask students each day what they see. When the one plant begins to wilt, have a student water it.

Set a can of water outdoors during sunny weather, with a mark at the water line. Have someone check each day, and ask what he has found. Where did the water go?

Boil water in a tea-kettle and hold a glass over the steam. Let students hold their hand over the steam at a safe distance. Where is the water coming from? Ask students when they have seen something like steam before: pots cooking at home? breath on a very cold day?

Let the class try heating things with sunlight: a magnifying glass to light a fire, or even boil a small bit of water directly. Have them take temperature in the shade and direct sunlight. Pour water on asphalt or cement outside in the early afternoon of a sunny day. Teach the word evaportion. Add other moisture demonstrations as appropriate (melting ice, timing drying of cloth square in shade and sun, humidity guage.)

Now you can teach the water cycle: little drops of moisture which are very light, go up into the air when heated by the sun - they evaporate. Then as they cool, they get together and make bigger drops, when the drops are big and heavy enough, they fall as rain.

Is water in the air always the same? No, hot, cold, snow if cold enough. The different kinds of water in the air relate to the four major kinds of climate: hot dry, hot wet, cold dry and cold wet. Which would you like to live in? How would you live in them? What would you need?

Ask how the land in places with each of these climates would look.

Pass out Animals, Climate and Terrain to each of the students, and explain that this is another story about how animals live in certain places that are best for them. Look at the following statements with your students after they have read the book to themselves:

"Animals are different from each other." How are animals different from each other? Why are they different from each other? How are the things that look different, the same in what they do? Make a list of differences that seem important.

"All animals have learned to live best in certain climates and terrain." How are living best and happy similar? What does "learned" mean? Do animals go to school? What does the squirrel like about where he lives that the lizard wouldn't like, and vice-versa?

"During the winter the earth tilts away from the sun." Use one of the globes and a lamp to show this. Ask what happens to the temperature of the air in the shade, and in the sun.

In both booklets, what came first, climate and terrain or animals. Then were animals put where they are, or did those that could adapt to the climate and terrain develop special ways to live where they were (adaptation). What happened to the rest. Give examples of adaption that the children can recognize and introduce some strange ones: the bat, the polar bear, the hummingbird.

ACTIVITY THREE: TERRAIN

The next step is to consider the land around us now that you have spent some time on animals and climate. The following series of steps will lead children to consider this aspect of their environment.

THE LAND AROUND US

Look at the ground under your feet.

Put some of it in your hand.

What does it look like?

How does it smell?

How does it feel?

Some ground has rocks in it and some has sand or clay.

Sand is rock that has been broken down into very small pieces.

Clay is a lot of very very small pieces of sand that stick together.

Soil may have some kind of rock in it and many other things besides. These things are all in very small pieces in the soil These small pieces are mixed with humus to make soil

Sometimes you can see dead leaves and bugs in the soil. Things that are dead change back into earth. We call this change decay. Decaying things in the soil make humus.

Decay occurs where there is moisture. If it is too dry things do not decay ver fast.

Plants grow where there is some humus. Humus is formed by decaying matter and moisture. Soil is formed by humus and pieces of rock. Some ground is just rock. Plants will not grow without soil.

Rocks and soil are changed by water, wind, and land movements, Can you think of other things that change rocks and soil?

Water washes away soil and makes valleys and canyons. It smoothes rocks and sometimes makes holes in them. Wind blows soil away and piles up sand dunes. What else does water and wind do?

Sometimes the surface of the Earth moves and parts of ground are pushed up or sink down or blow up.

Hills and mountains are pushed up from the Earth. Water and wind change their shape and cut our valleys, canyon, and mesas.

There are hills and mountains and mesas and canyons and rocks and soil and rivers and lakes all over the world.

Some places have rocks and hills but no rivers or mesas.

Some others have mountains and lakes but no sand or canyons.

There are places with only rocks and sand that are very flat.

and some places that are rocky and very steep.

Some places have lots and lots of trees and bushes. Some have no plants at all. Why?

Each of these different ways water and rocks and soil are grouped together in one place is called the terrain of that place.

This is a rocky terrain.

This is a canyon terrain.

This is a flat sandy terrain with mesas.

A terrain is made up of many things. The many ways these things are grouped together makes different terrains.

Look at the land near you. What kind of terrain does it have? Draw a picture of it.

Looking at the terrain can tell you a lot about the way the land was shaped and changed by wind, water, and land movements.

These hills were pushed up out of the Earth. When it rained small streams formed which made ridges on the hills.

Make a small pile of soil and rocks and pour water over it like rain. What happens?

Fill a flat box with rocks and soil. Blow on it and run some water over it. What kind of terrain does this look like?

Looking at the terrain can help you find water, food and shelter.

Could you find water here? Where would it be? Why?

Where could you find food and shelter? How do you know?

The terrain determines where water, food, and shelter can be found by animals or man. Different terrains have different foods and shelters.

Different terrains are made by the different ways rocks and soil are grouped together and changed by water, wind and land movements.

The conclusion of this unit is to ask how man lives on the world, in what ways is he like other animals and in what ways is he different.

UNIT IV: HOW DO THINGS WORK ON THE WORLD

This unit, and the next are up to you to construct. Five copies of the Outline of Classroom Activities are included at the end of this section.

How do animals, climate and terrain interact. What can man and animals do to adapt to their environments? Pick four sample climate areas. Your own and three others that represent each of the four climactic conditions. For example: Arizona, the Amazon, the Northwest coast, and the Alaskan tundra.

Students research the area: find it on the map, discover its climate, terrain features, and animal life. They prepare a booklet on the area (a team for each) leaving blank pages to fill in about how men live in the area. Man can live anywhere because he is able to adapt more easily than any other animal.

UNIT V: HOW DO WE LIVE IN THE WORLD

This unit should consider man in his environment. How does he adapt to it? What does he have to do? What can he choose to do? The students make booklets for each of the four areas of the previous unit showing how man uses animals, climate and terrain in each area. Model houses can be built. The girls can make paper clothes, while the boys can indicate where food comes from and how it is gotten.

The class ought to spend time also on what happens when man misuses the environment in each of the four areas: pollution, depletion, erosion, over-use should be looked at.

As a final activity, design some environments, even imaginery and unworkable ones, and ask students to say how they would adapt to these "created" environment. Propose a "mystery climate/terrain location and divide the students into groups to work out their own model of adaption and interaction.

UNIT VI: REMAKING THE WORLD

This is the post-test for the year. Review the world the students made in unit I with them and ask them to revise it. Then point by point raise the questions you feel are critical about it.

Culmiante the year with some activity which will be a contribution to the terrain around the school. Let the students work up this project.

TITLE: ____________________ UNIT TITLE: ____________________

LEVEL: ____________________ SUGGESTED LENGTH: ____________________

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
—	—			—	—
—	—			—	—
—	—			—	—

Third Grade: Using the Land

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UNIT III: ECONOMIC SYSTEMS THE STUDENTS KNOW

OUTLINE 55

Introduction

Elementary economics deals with how man meets his basic physical needs in the struggle to survive. The questions elementary economics seeks to answer are:

What is produced?
How?
By whom?
For whom?

Two points of view dominate this third-grade study of elementary economics. First, students learn how economic interaction between man and nature and between man and man develops over time. Secondly they learn how present economic institutions develop from the need to solve an economic problem.

In these units, children are introduced to concepts and skills which they will use again and again throughout their academic and vocational lives. Economic interaction, economic change, economic conflict, economic power, and economic valuing are critically important dimensions of contemporary human experience. Indeed, both individual and group freedom rest on skilful practice in these realms of experience.

Since the concepts of economics are interdependent, they are virtually all introduced in simple form in this year of study. They will be repeated in greater depth during succeeding years. Thus, the student in the third grade begins by looking at man's basic needs and how he has organized himself to meet them. In high school, he will return to this subject to look more closely at how the major economic systems have been and are being developed.

For third-grade students, these important concepts are studied in the present, with the immediate place the child knows as the theatre of study, and with himself, his parents, relatives and neighbors as the actors. Elementary economic concepts are tied directly to the land as the primary economic resource for meeting man's needs. Land and its uses are a primary experience for the young child. It is the teacher's task to give him the language and the intellectual process skills for making this experience conscious. This consciousness is particularly important for the Indian student. While in many cases still undeveloped, reservation land is the Indian's richest possession, both in terms of its historical meaning, and in its present value. It is potentially the student's most powerful future economic and political tool. These units will introduce the student to the value of the land in an economic sense. They will also stress the necessity of using land carefully in order to preserve its value.

Economics of land and related technology and human organization follow second-grade social studies materials which explore the environment and its effect on man. In studying the economics of land, the student can begin to see how he can relate in the most effective way with the land, and how he can use it to his advantage.

The year is divided into three major units of study:

Unit I: What Man Takes From the Land

Unit II: Simple Economic Systems Based on the Land

A. Closed

B. Open

Unit III: Economic Systems the Students Know project ESSITIES

TITLE: USING THE LAND
UNIT TITLE: What Man Takes From the Land

LEVEL: THIRD GRADE
SUGGESTED LENGTH: 8 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
	(hours)				
1	2	Introduction and Pretest Part #1 Students pretended to be scouting parties investigating unknown land to see how it could be used to sustain life. The class divided into four groups, and each group generated a list.	compass pencils, crayons paper	—	9
2	1	Pretest Part #2 The class saw a film and recorded all the economic activities they could observe. The students also explained why these activities were being performed. Observations were saved for later comparison.	Film: "Everyone Helps in a Community" Available from: Bureau Wide Film Service P.O. Box 66 Brigham City, Utah 84302 paper pencils	film proj.	11
3	1	Environment Students reviewed elements of the environment (introduced in second grade) through question and answer discussions with the teacher. concepts: terrain animals climate natural environment nature		—	12

[illegible]

TITLE: USING THE LAND UNIT TITLE: What Man Takes From the Land

LEVEL: THIRD GRADE SUGGESTED LENGTH: 8 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equip-ment	Narrative detail on page no.
4	(hours) 1	Things in the Environment Students classified elements of the environment and made posters of four major aspects.	poster paper crayons, paint, etc.		15
5	3-4	Seeing the Environment Students took a field trip to observe the outdoors. Class divided into two teams, brought back samples and compiled lists.			16
6	4-5	Drawing the Environment Each team created a panorama of the environment it observed.	artistic media		18

TITLE: USING THE LAND

LEVEL: THIRD GRADE

UNIT TITLE: What Man Takes From the Land

SUGGESTED LENGTH: 8 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Week Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
7	(Hours) 4-5	Maps and their Codes Class created symbols for and drew maps of their panoramas.	drawing materials topographic map	—	19
8	4-5	Resources and Needs Students made something as if they were using only natural materials (but used cardboard and clay instead). Children discussed: uses of things basic needs limited natural resources	clay scissors cardboard, crayons artistic media	—	21
9	2-3	Basic Needs Students discussed how environments vary and wrote pen pal letters to classes on other reservations.	artistic media paper two large envelopes map of the United States	—	24

TITLE: USING THE LAND
LEVEL: THIRD GRADE
UNIT TITLE: What Man Takes From the Land
SUGGESTED LENGTH: 8 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
	(hours)				
10	4-5	An Ideal Environment Using the environment panoramas they had created previously, students added or subtracted what they wished to make them ideal environments.	artistic media	—	26
11	2-3	Making the Ideal Environment Work Students discussed natural limitations in what can exist simultaneously and decided to make their environments "work."	artistic media	—	28
12	4-5	Families Students acted out a family survival exercise. concepts: needs division of labor use of natural resources	items of clothing pictures of family members in an early society artistic media	—	29

UNIT I: WHAT MAN TAKES FROM THE LAND

ACTIVITY ONE

Introduction and Pre-test Part I

The teacher told the students that they were going to learn this year what man can take from the land. As a pre-test and introductory activity, she divided the class into four groups and told them to pretend they were not in the classroom, but instead, to imagine that they had just taken part in this story:

> "One year in your village, bad weather caused the crops to fail. People were hungry and started to fight with one another. The village was composed of four major families, and the constant fighting and family feuds caused the rest of the village to break into four factions, or warring family groups. These groups fought until the village had been destroyed. Each family wanted to leave and go its own way. But before they could leave, they had to send out scouting parties to see where they should go. Each scouting party would return and report to the family about the condition of the land. One party went in each direction--north, south, east and west. The north was the land of the great lake. The south was the land of the fields. The east was the land of the forests, and the west was the land of the mountains."

Each group was to be the scouting party for one family. The teacher had brought a compass to class. She explained how it worked and how it indicated north, south, east, and west. The scouting parties examined the compass and decided which direction they would be traveling, and then met in the corner of the room corresponding to that direction. Group members worked together to make a list, in words or pictures, of things they could use to stay alive in the land they scouted. The teacher told the students to explain how they would get these things and how they could use them. When all the lists were completed, each group reported its list to the "family." The students discussed whether it would be possible for the village to break up and each family go a separate direction. Students posted their lists on the walls of their part of the room. They were left there for later use.

ACTIVITY TWO

Pre-test Part II

The teacher had ordered the film, "Everyone Helps in a Community" and the accompanying taped directions for this activity. She played the tape before showing the film. The tape instructed the students to watch the film and then write down what they saw the people doing and why they thought the people were doing these things.

When the children's observations had been recorded and collected, the teacher explained that she would save their answers. Later in the year they would see the same film and answer the same questions. By comparing their first answers with the later ones, they would be able to see how much they had learned.

ACTIVITY THREE

Environment

The teacher asked the students what they see when they are outside. As the students volunteered ideas, the teacher listed them on the board. After awhile the teacher said, "Pretend it is a long, long time ago--before people lived on earth. What things on the list wouldn't be here?" The teacher erased those items from the general list and placed them in another column. "Why wouldn't they be here?" The answer to this question gave them the column title, "Man-Made Things."

Since the students' list did not include aspects of climate and weather, the teacher led them to these ideas with the following questions:

> What types of things are on the list?
> Can you touch them?
> Can you see them?
> Is there something outside that you can see, but not touch? (sun)
> Is there something there that you can't really touch or see? (air)

Once the sun and air were in the picture, the teacher asked:

> Is it always sunny outside?
> How often does it rain?

What happens if it doesn't rain for a long time?

To introduce fire, the teacher asked, "What happens if it does not rain for a long time and lightning hits a tree? Is that part of nature? Is it man-made?"

The teacher next led the students to the idea of varied terrain, including terrain that was not necessarily visible from the school.

Are there mountains (or, if appropriate, flat lands) everywhere?
Where aren't there mountains?

Finally, the teacher led the students to the idea that climate and terrain determine the type and quantity of plant and animal life.

Do the same kind of plants and animals that live in the mountains live on flat land (plains)?
Is there more life in the desert or in the jungle? Why?

At this point, the teacher introduced the term "environment." She explained that the things the class had been discussing--air, mountains, water, plants, etc.--are the environment. The out-of-doors, unchanged by man, is man's natural environment.

Note: This activity reviews ideas covered in the Project NECESSITIES second-grade curriculum. If the students are unfamiliar with ideas of climate and terrain and their influence on plant and animal life, more than one activity centered around these concepts should be planned. The second-grade Teacher's Narrative would be useful for this.

ACTIVITY FOUR

Things in the Environment

The teacher told the students that they would make posters illustrating with words and pictures those elements of the environment that they had listed on the board the previous day. Since there were too many things for one poster, she asked the following questions to elicit classifications:

How are mountains and rain different? Would they belong on one poster?

How are rain, wind, and snow the same?

Are the earth and sky different?

How are plants and animals the same? How are they different?

The class divided into four groups and each made one poster. The four different posters were entitled Weather, Plants, Animals and Terrain. Next, the class discussed fire, water, air and earth--the four basic elements, and each student drew a picture of them.

ACTIVITY FIVE

Seeing the Environment

For this activity, the students took a "seeing" field trip. The teacher enlisted a mother or teacher's aide and divided the class into two teams of "seers." She explained to the students that they would have to look carefully at the things they would see outside, because the next day, each team would recreate a mural of what they saw.

The teacher had arranged transportation and picnic lunches for the trip. She and her helper each took half the class and went in a different direction in the hope that each group would see different things. As they walked, the students were asked to describe what they saw. Guiding questions were:

Where is water? How can you tell?

Why aren't there trees on the buttes?

What lives in that hole?

Look at the sky. What do you see? What would you see if it were night?

What things are part of nature?

Which are man-made?

Each student was told that he could bring back something in his empty lunch box to display in the classroom. The only condition was that the object must not need constant care in order to live (like an animal or insect).

Back in the classroom, the teacher asked the students to put the things they had brought in on the back table. Any plants that needed to be put in water were taken care of. She then asked the two groups to tell each other what they had seen. She selected different students to report and asked other members of his group to add anything left out. She then asked students to comment on the things one group saw that the other did not. She asked about the things they knew were there but didn't see (such as air or perhaps a ground hog). She also asked how things would be different at night. What was in the sky? What animals roamed at night? Finally, the class discussed things they might have seen if they had traveled elsewhere.

ACTIVITY SIX

Drawing the Environment

Each team was assigned half of the back of the room in which to create their environment. The teacher separated the work areas with a bookcase. Several students were asked to pass out pencils and paper and each team was instructed to design the landscape scene they saw on the trip. This pencil version would be a guide for painting the larger-scale mural backdrop. When the teams had finished drawing, each separated into three small groups: one to join rolls of paper together, sketch and then paint the mural backdrop; a second to start arranging and placing some of the materials they had collected in a display; and a third to cut out and paint cardboard animal figures.

After approximately a week of work, the two panoramas were completed. Students discussed what they had put in their environments and how the two panoramas were different and/or the same.

ACTIVITY SEVEN

Maps and Codes

The teacher brought a topographic map of the area to class. She pointed to various symbols--mountains, rivers, etc.--on the map (but did not point to the legend) and asked,

> What is this?
>
> How do you know?
>
> If you didn't know before that a sand hill, forest, river, etc. was there, how can you discover it from the map?

This led the students into a discussion of the use and design of symbols to represent physical features on a map.

The teacher asked the children to look at the environments they had created in the classroom. She explained that their panoramas represented the real outdoors. Each cardboard animal and painted tree stood for something real. How were they different? The representation has two dimensions--length and width, but the real thing has three--length, width and depth. A map is a code of the real outdoors that tells people what is there and where it can be found. The students were asked to create codes for the things that were displayed in the room and then to draw a map using these codes. The maps would show where things are in relation to each other as well as in relation to certain known landmarks such as the school. Questions the teacher asked to explain these aspect of maps included:

> What natural things in the back of the room can be found near the school?
>
> What things are found near each other? Far apart?

When the maps were finished, the teacher asked a few students to discuss their versions. She asked if the class would be able to find different features in their panorama by looking at the map. All the maps were displayed on a wall near the panoramas.

ACTIVITY EIGHT

Resources and Needs

Once again the teacher referred to the panoramas the students had created and asked them:

> What things in the classroom could you use?
>
> What would you use these things for?
>
> Are there some things here that you can't use exactly as they are, but could if you combined them with other things?

The teacher listed the various suggestions on the board. She then told the students that they should pretend that they were living a long time ago, before stores or schools existed. The environment they had created was to be the real environment. Each student was to make something from clay or cardboard and paper, and pretend that they were using natural materials from their environment. The teacher explained that clay is a natural resource and asked the students if they knew where paper and cardboard come from.

Before the students started working, the teacher asked these questions:

> What would happen if one of you decided to make everything he wanted and used everything from the back of the room?
>
> What would happen to the other children?

What would happen if no plants were left to produce seeds or no animals were left to have baby animals? What would happen to nature? What would happen to you?

The students discussed how things in nature could be used up and how people could not make everything they wanted without using up all the resources and destroying nature's balance. The teacher explained that later in the year they would return to this subject and that she would bring in pictures of what happens when people misuse nature. She then told the students to go ahead and make something, that nature would be their friend as long as they were hers.

After the students had finished making things from the natural environment, the teacher asked them what they had made and what it could be used for. She wrote the items and their uses on the board next to the list that had been compiled before the students started working. The teacher then asked the children to group these items into some general areas which represent how they are used, such as food, clothing, shelter, toys, tools, etc.

Students next identified which of the things they had made or listed on the board were necessary for life. The teacher put stars next to the things the students felt to be vital, and asked them if they had all the things marked with stars, could they live?

What things were missing?

Were food, water, clothing, and shelter on the list?

Was air on the list?

Was air less important, just as important, or more important than the other items?

When would clothing and shelter not be basic needs? When would they?

The teacher then asked the students if there were other things they need in order to live. (Could everything be found in nature or bought in a store?) In this way, the teacher showed the distinction between economic needs which can be met by physical objects such as food, water, clothing, and shelter; a free need such as air; and needs that are not physical or economic, like love, friendship, and self-esteem.

ACTIVITY NINE

Basic Needs

The teacher first reviewed the previous lesson about basic needs. She asked the students to remember what things they had decided were necessary for life. She reminded the children of economic needs, which can be satisfied by physical things. Other needs like love or self-esteem are not economic needs.

She told the class that she knew some teachers who taught in other Bureau or public schools in other parts of the country. She said the students in other parts of the country were interested in finding out how students here live and asked if her students would be interested in finding out how they live. The teacher then explained what a pen pal is. She said that by sending letters, pictures, drawings, and maps through the mail, the students in different classes could become friends, even though they live far apart.

These questions started a discussion:

Do Alaskan students (for example) have the same basic needs that you have?

Do they meet the needs in the same ways?

How is the climate different there?

How does that affect what they do or what they need?

What would other students like to know about us?

The last question led to suggestions that the students send pictures, letters, maps, and even leaves that would describe the way they use their environment.

The teacher divided the class into two groups because she was going to correspond with teachers in two different parts of the country. Each half of the class was to write to one of these classes. They would share the answers with each other when their packets arrived.

The teacher produced two big envelopes into which the students put their letters and other objects. She then showed them how to address the envelopes and explained that postage pays for the package to be mailed. She asked if students could describe the path the envelopes would travel and the types of transportation they would ride in. (When replies came from the other schools, the teacher showed the class the postmarks indicating where the mail had come from and showed the students on a map of the United States where these towns were.)

ACTIVITY TEN

An Ideal Environment

Having become familiar with their own environment and how to use it, and having discussed briefly other environments, the students were asked to create their own ideal environments and give them names. The teacher told the children to use the environments they had already created and to stay in their teams. They could take anything away from their environment panoramas or add anything they wished. At this point the teacher made no restrictions about the types of things that could be included. The students again used artistic media to create representations of things they would like in their ideal environments.

After a few days' work, the students discussed their new environments:

What did you put in your environment?

What animals?

What plants?

What climate?

What terrain?

Why did you put them there?

Answers to the last question included both functional and esthetic reasons. This led to a discussion, as in Activity Eight, of needs, wants, and non-economic needs such as beauty.

Some of the students had been very imaginative. One had put a giraffe in his environment. He didn't know whether giraffes were good to eat, but he had seen a picture of one once. He thought it would be nice if an animal could eat the leaves of the tall trees he had included.

ACTIVITY ELEVEN

Making the Ideal Environment Work

The teacher asked the students to look again at their new environments. "Will they work? According to all the things you know about nature, could you ever find such environments?" To elicit answers to this major question, the teacher asked other questions:

Can you have snow and warm sun at the same time?

Can you have lots of green grass and lots of hot sun at the same time?

Do you ever need rain? Why?

Can you have corn in the mountains?

Can you put cattle in the mountains?

Why do you want cattle and corn?

Having discussed how nature limits what man can have, the teacher asked the students to rearrange their environments so they could exist according to basic natural laws. To do this, children had to make decisions about what they wanted to keep and what they could give up. Questions to guide the decision-making process included:

What things do you need to use?

What things do you need to make you happy?

Which things are more important to you than others?

ACTIVITY TWELVE

Families

The teacher began the activity with a discussion about families.

Who is in your family?
What does each person do?
What does each person receive?
Who decides what should be done?
Who decides who should do the different tasks?
Who decides what should be made (produced)?
Who decides who should use (consume) those things that are produced?
Who produces things? Who consumes things? Are these the same people?

The teacher brought in items of clothing that would represent each member in a local family of early times. She also had pictures of different family members--baby, sister, brother, mother, father, aunt, uncle, cousin, grandparents--labeled in English and the students' native language(s). She told the students that they were going to pretend to be families living long ago. The students were to act out four different families as they had at the beginning of the year. Instead of belonging to a scouting party, however, they were going to be actual family members. They were to pretend that, having lost all their possessions in the village war described earlier, they were now wandering. They were alone and had to do whatever they could to stay alive. What would they do and where would they go? They could decide themselves what their setting would be. It could be the actual land in their vicinity; it could be the north, south, east or west of Activity One; or it could be the ideal environment they had created.

The teacher told each of the four "families" to decide which family members needed to be depicted. They were also to decide among themselves who would play which role. When they had decided, the teacher would give them pieces of clothing for costumes.

Students chose their roles and the environments they would use. They spent one day drawing pictures to illustrate the terrain and natural resources that would exist in their environments. Each family worked together, but independently of the others, to decide what things they needed to do and how they would do them. The students first acted out their roles among themselves. Then each family performed in turn before the class. One of the families had chosen hunting as their occupation, while another had chosen farming. Some used a combination of the two.

After the four families had performed, the teacher led a discussion:

Would all the families you watched have survived?

What were their resources?

What were their needs?

Did they meet all their needs? How?

Did they have food, clothing, and shelter?

Who produced things? Who consumed things?

Were there tasks which had to be done? Why?

What would happen if each family member had to do everything himself?

What does the phrase "division of labor" mean?

Would it have been easier, living in those days, if each family had more than five members, or if more than one family could help each other?

The discussion elicited the idea that nature and man are both resources. Man divides or allocates his labor and uses plants, animals, land and climate to help supply his needs. The better he is able to do this, the better he will survive.

The teacher next led a discussion about the different occupations the students chose and asked questions about occupations they did not choose. Some questions were:

Why did you choose the terrain you did?

How did the terrain you chose influence the kind of work you did?

What kind of home did the farmers build?

What kind of home did the hunters build?

If you were first a hunter, would it be possible for you to become a farmer?

If you were first a farmer, would it be possible to you to become a hunter?

Why do hunters have to wander (be nomadic)?

Why do farmers have to stay in one place?

Is it possible to do some of each occupation?

What if you were all alone?

After having discussed the factors which influence life-style decisions, the teacher asked the students questions about their own background.

What did your grandparents do?

Did they always live here?

Where did they come from?

What did their grandparents do? Why?

What tools did they use?

What resources did they have?

What needs did they have?

How were their lives different from (and how were they the same as) your life?

UNIT II: SIMPLE ECONOMIC SYSTEMS BASED ON THE LAND

Overview

A. Closed System (Activities 13, 14)

In early times, man survived within closed economic systems. Villages were predominantly self-sufficient, with villagers cooperating to gather food, make clothing, and construct shelters from the natural resources available. In this system the land played a very important and direct role. Through stories and role-play activities, students will discover for themselves how man organized himself to use nature in this type of economy.

B. Open System (Activities 15 - 22)

As more advanced means of transportation and communication developed, villages were able to trade with one another. Trade increased the variety and quantity of goods available to each village. As technology advanced, simple manufacturing systems developed. Villages became more interdependent and less self-sufficient. People looked beyond their own villages for things that were needed, and craftsmen began to specialize in producing limited goods for trade. As people traded more and more, the barter system became inefficient. Media of exchange developed, from shells to metal coins to our present-day money, checking and credit systems. Again, stories, role-play and discussions have been developed to teach third-grade students these concepts. Children will also be introduced to simple cost-benefit analysis, a tool which uses the student's own values to analytically determine what is a cost or a benefit, and help him make economic decisions on this basis.

TITLE: USING THE LAND

LEVEL: THIRD GRADE

UNIT TITLE: Simple Economic Systems/A. Closed Systems

SUGGESTED LENGTH: 1 week

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
13	(hours) 2-3	Shageluk: A Closed Economy Students read the story of Shageluk as an example of a closed economic system and discussed self-sufficiency.	Booklet: Shageluk and Egegik		36
14	4-5	Interdependence in a Closed Economy The class acted out life styles in two closed economy villages. concepts: use of land division of labor needs danger protection conflict			38

UNIT II: SIMPLE ECONOMIC SYSTEMS BASED ON THE LAND

Part A: Closed Systems

ACTIVITY THIRTEEN

Shageluk: A Closed Economy

The teacher explained to the students that they have been discovering what things they can take from the land to use. Now, they would study the ways people work together to use the land. When people work together, it is called a system. When they work together to use natural resources to meet their needs, it is called an economic system.

The teacher distributed the book Shageluk and Egegik. She told the children that it contained stories about two different economic systems in Alaska. These systems are fishing villages. The students took turns reading the first story aloud.

After they had finished reading, the students discussed the importance of nature to the people of Shageluk. They talked about the type of work the people do and how they work together. The teacher asked the following questions to stimulate discussion:

How does the land in Alaska supply the people of Shageluk with food?

What types of food do the people eat?

What do they use for catching fish?

Where do these tools come from?

What other ways are there to fish?

Why don't the people of Shageluk use them?

Who catches the fish?

Who eats the fish?

How do they preserve the fish for the winter?

Why don't they sell the fish?

What else do they eat?

How do you think they hunt?

Who do you think does the hunting?

What else do the people make? Why?

What do they do with the things they make?

What different things could the people do with their furs?

What would happen to the people if they could not sell? their furs, if the planes and boats stopped coming to Shageluk?

The last question led to a discussion about Shageluk's self-sufficiency. The people of the village could survive even if they had no contact with the outside world. As it was, they had only a little contact with other villages, and this contact did not change their way of life. This, the teacher explained was an example of a "closed" economy or economic system.

ACTIVITY FOURTEEN

Interdependence in a Closed Economy

The teacher told the class that they would act out their own "closed" economy. The classroom families from Activity Twelve would unite to work together. It is possible, the teacher explained, that this is one way villages formed long ago. Sometimes it took many years, as an entire tribe grew from one or two families.

The teacher asked the two families who had been predominantly farmers to form one village, and the two families who had chosen hunting to form another village. (In one of her classes, all the families had chosen hunting, so she asked two groups to be farmers. In another class, she conducted this activity with another teacher who also had third grade during this period. They combined their classes, thus enlarging the villages, and found this to be an ideal activity for team teaching.)

Village members worked together to define their roles, but both villages worked independently of each other. After a few days of play-acting among themselves, the students acted out their respective village lives in front of the other half of the class.

While one village acted out its life style, the teacher chose one member from the other village to be a wolf making a surprise attack. As the second village was acting, a member of the audience played a robbing warrior. The villages were thus forced to cope with danger, and the class later discussed dangers in living:

> Can nature be an enemy as well as a friend? How?
>
> Can man be an enemy as well as a friend? Why?
>
> Do people live and work together for protection as well as for sharing food, clothing and shelter?
>
> What would happen if one of the members of the community decided not to work?
>
> What would happen if he decided to break the laws of the community?
>
> What would happen if, at the same time he was disturbing the villages, a wolf or other enemy appeared?

The teacher stressed the importance of each person's role and the necessity of cooperation in a small, interdependent (but self-sufficient) community. As the class was discussing the farming and hunting villages, she asked:

> What did people do in each village?
>
> How did they divide the work? Why?
>
> What did they eat?
>
> What did they wear?

Where did they live?

How were the villages different?

How were they the same?

The discussion reinforced the concepts of allocation of resources and division of labor.

TITLE: USING THE LAND

UNIT TITLE: Simple Economic Systems/B. Open Systems

LEVEL: THIRD GRADE

SUGGESTED LENGTH: 7-9 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
	(hours)				
15	2-3	Egegik: An Open Economy Students read the story of Egegik as an example of an open economic system and compared this village with Shageluk.	Booklet: Shageluk and Egegik		44
16	4-5	Exchange in an Open Economy Students discussed and drew the production process of canning fish and learned about the exchange process in selling the fish to the cannery.	paper pencils tape		46
17	1-2	Transportation in an Open Economy Students saw two films and discussed types and functions of transportation.	Film: "Development of Transportation" "Transportation in the Modern World" Available from: Bureau Wide Film Service P.O. Box 66 Brigham City, Utah 84302	film proj.	48

project NECESSITIES

TITLE: USING THE LAND

UNIT TITLE: Simple Economic Systems /B. Open Systems

LEVEL: THIRD GRADE

SUGGESTED LENGTH: 7 - 9 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
	(hours)				
18	1-2	Production of Goods Students "produced" village goods for trade and ultimate consumption.	clay cardboard scissors artistic media		49
19	4-5	Trade Students began trading and, on a simple scale, followed the development of an open economic system. Groups set up "factories" to produce more goods and used a barter system.	clay cardboard scissors artistic media		50
20	4-5	Supply and Demand As more sophisticated exchange systems were needed, students used money in place of the barter system. They discovered the effect on prices of a change in supply (or demand) of a good.	play money		51

TITLE: USING THE LAND

UNIT TITLE: Simple Economic Systems /B. Open Systems

LEVEL: THIRD GRADE

SUGGESTED LENGTH: 7 - 9 weeks

OUTLINE OF CLASSROOM ACTIVITIES

Activity Module Number	Suggested Length of Activity	Title and Description of Classroom Activity	Materials for Classroom Activity	Equipment	Narrative detail on page no.
21	(hours) 2-3	Cost-Benefit Analysis Students were introduced to cost-benefit analysis by listing what was good and bad about the two economic systems (Shageluk and Egegik) they studied.			53
22	1	Post-Test Students followed sequence of Activity Two and compared their earlier observations with the ones they were now able to make.	Film: (rerun) "Everyone Helps in a Community"	film proj.	54

UNIT II: SIMPLE ECONOMIC SYSTEMS BASED ON THE LAND

Part B: Open Systems

ACTIVITY FIFTEEN

Egegik: An Open Economy

The teacher again passed out Shageluk and Egegik. She encouraged various students to read the second story aloud. The teacher began the discussion by asking, "How is Egegik different from Shageluk? How is it different from the villages you created in the classroom?" Other questions that supported the discussion included:

What do the people of Egegik eat?

Where does the food come from?

How do the people catch fish?

Where do their tools come from?

Why don't the people of Egegik use small trees and willows to make a dam to catch fish?

Why do the people of Shageluk keep their fish?

Who do the people of Egegik sell their fish to?

Why do the people of Shageluk still use dogs to pull sleds?

Why do the people of Egegik use snowmobiles instead of dogs?

How are the methods of keeping fish in Shageluk the same as in Egegik?

What are the differences in keeping fish in Shageluk and Egegik?

Would you like to live in Shageluk for a summer? Why? Why not?

Would you like to live in Egegik for a summer? Why? Why not?

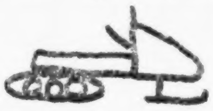
How important is the outside world to Egegik? to Shageluk? to your village?

What would happen to Egegik if the people could not get their fish to the cannery?

These last questions led to a discussion about Egegik's dependence on other villages and cities. The teacher explained that this was an "open" economy. Goods and people moved in and out of it as if it had an open door, while everything stayed inside Shageluk. The teacher asked the class how this type of economy changed the way people lived--what they had, and what they did.

ACTIVITY SIXTEEN

Exchange in an Open Economy

The teacher asked the students to remember the fish of Egegik. She drew a fish in some water on the left side of the board, a can of fish in the middle , and a snowmobile on the right  . Then she drew a big question mark between each picture and asked, "How does the fish get from here (pointing to the sketch of the fish) to here (pointing to the picture of the can)? How do the villagers get snowmobiles? What steps do we need to put where the question marks are?"

First the class discussed the question mark between the fish and the can. As the students started suggesting what should fill the space, the teacher erased the question mark and made a list in its place. She directed the discussion to get a comprehensive list--for example, when one student said, "They take the fish to the cannery," she replied, "That's right, but how do they do that?", thus drawing out the idea of transportation. At the end of the period, the random list included:

fish nets bought from the city
people take fish out of nets
trucks

airplanes

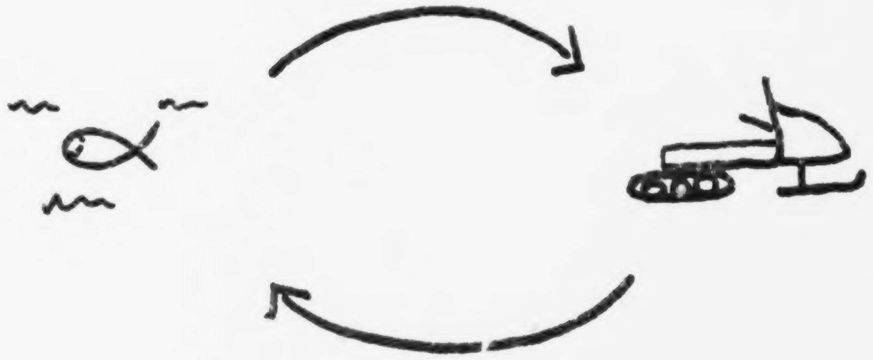
cans bought from another factory

people put fish in cans

people put labels on cans

The teacher then gave the students blank paper and pencils and scotch tape. She asked them to draw a step-by-step picture of how the fish get from the water to the can. They were to draw the pictures across the page, with arrows from one step to the next, and they could tape extra paper onto the page when necessary.

Students next determined how the village got its snowmobiles. They discussed the money system. People took the fish to the cannery, and in return they received money which was distributed throughout the village in the form of wages. The cannery sold the cans of fish to get the money to pay the villagers of Egegik. The villagers used the money to buy food, clothing, shelter, snowmobiles, and gas. The snowmobiles were used to help gather the fish. The teacher showed the children that a cycle had appeared.



ACTIVITY SEVENTEEN

Transportation in an Open Economy

The teacher told the students that they would see two short films about some of the arrows they had drawn during the last activity, the ones that pointed to how things got from one place to another. The way things (and people) get from one place to another, she explained, is called transportation.

The films were "Development of Transportation" and "Transportation in the Modern World." After they had been run, the students talked about the different types of transportation they had seen, and the teacher listed them (from feet to airplanes) on the board. She then asked the children to help her make two lists, one for Shageluk and one for Egegik, showing the different means of transportation used in each village. She asked the students why Egegik needed so many different types of transportation and which village was more dependent on the outside world for its transportation.

ACTIVITY EIGHTEEN

Producing Goods

The teacher asked the students to remember the villages they had acted out (Activity Fourteen). They were now asked to make (or produce) from clay or cardboard the types of goods their villages produced. The teacher asked if they might get tired of the things they produced all the time in their own villages.

What would be the best way to get more kinds of things?
Can the village produce everything itself?
What happens when two villages cooperate?

The class discussed trade and children were told that they could use their clay and cardboard products for trading with the other village the next day. Since they had to make enough goods for trading in quantity, each figurine or cut-out was allowed to represent 10 of the same items. They also cut out baskets, beads, shells, jewelry, and any other things their villages might have produced or used as they were.

ACTIVITY NINETEEN

Trade

The next day, the teacher told the class to resume their roles. She said that the two villages could now begin trading and do anything they wished--even start factories of their own to produce more items--as long as they had the resources. They were encouraged to use their imaginations.

The class began trading. Each village decided who was responsible for trading the goods and who was responsible for dividing the goods received among the rest of the village. They traded their cardboard goods and then made more. Both villages began to set up their own factories for increased poduction. Shells and beads were used for barter.

ACTIVITY TWENTY

Supply and Demand

The teacher gave each team some play money at the beginning of the lesson. Each village was to meet for a short while and decide among themselves prices for their goods.

As the day's trading session was about to get underway, the teacher announced that she was playing the role of fire. Last night she had come and eaten half of each village's products. She thereupon divided each group's objects and took half. She told the two villages to meet again and see if this act of nature would change the price of the products. The discussion that ensued was guided by these questions:

Why trade?

Who gains by trade?

What is barter?

What is a medium or tool of exchange?

Who decides price when a medium of exchange is used?

What happens to the price of a good if its supply becomes greater or smaller?

What happens to the price of a good if more people want (demand) it? If fewer demand it?

Does this have any relationship to what happens in the stores?

What would happen if no one wanted to buy boots? If everyone wanted to buy boots?

These questions were asked by the teacher to introduce price determination and simple supply and demand.

ACTIVITY TWENTY-ONE

Cost-Benefit Analysis

The teacher asked the students to think back about Shageluk and Egegik and what it would be like to live in one of these villages. Setting up half the board for Shageluk and half for Egegik, she asked the students to mention all the things they thought were good about each and all the things they thought were bad. The class discussed variety of goods, leisure time, greater quantities of goods, cultural values, dependence on outside forces such as transportation, factories, pollution, and so on. Students weighed the pros and cons and made decisions.

The teacher then told the students that what they were doing is called cost-benefit analysis. A cost is something you pay or give up to get something. A benefit is what you get. Things you don't like (because you give up something) are considered costs, while things you like (because you gain) are considered benefits. When you are making a decision, it is useful to compare whether something has more benefits than costs or more costs than benefits.

ACTIVITY TWENTY-TWO

Post-Test

The children were told that they would see a film--the same film they saw at the beginning of the year, entitled "Everyone Helps in a Community." Again, the taped instructions told them to watch the film and then write down what the people in the film were doing and why they were doing it.

After all children had finished their observations, the teacher collected them and compared them with those the children had made at the beginning of the course. She was looking for:

a) an increase in the number of activities perceived;
b) greater detail used in recounting these activities;
c) greater accuracy in explaining why the activities were being performed.

She then returned both sets of observations to the students so they could determine their own progress.

UNIT III: ECONOMIC SYSTEMS THE STUDENTS KNOW

OUTLINE

This third unit in the study of elementary economics is to be developed by the teacher herself, since she can best assess student needs and local resources. The study can be guided by certain key questions introduced in the following order:

What is money?

What different things act as money?

What is money used for?

Where do you get money?

Where does your family get money?

Where do other people get money?

What are the different types of jobs?

What types of jobs receive what salaries? (How is income distributed?)

What training is required for each of these jobs?

What job would you like to have someday?

What jobs use the land as a resource?

What jobs destroy the land (water, air, plants, animals) in using it? How?

How does the reservation make money?

How does the reservation use the land?

How do different reservations use the land in different ways?

How do reservations differ?

To answer the first two questions students should visit their school bank (if such exists) and a commercial bank. These visits would include discussions and demonstrations about coins and currency as money, about how to deposit money, and what the savings book and interest represent. It will also include an elementary introduction to the use of checking accounts and how a check acts as coins and currency. Students should visit the bank tellers' windows as well as behind the scenes. An officer of the bank, contacted previously, could talk with the students to explain what a bank does. He would explain what a loan is and how banks make loans. In conjunction with studying loans, students should also become familiar with credit and credit cards. Perhaps the most familiar example is a gas station's credit card. Interest--the cost of a loan--should be introduced with the discussion of loans and credit.

Discussion of what money is used for should include a reference to the previous two units' discussion of needs and wants. At this point students could set up a candy store, buying candy wholesale (with their own initial investment or with one from the school which must be paid back) and selling it at a profit. They should be allowed to make decisions about what price to charge, how much and what brands to buy, what records should be kept and how, and how to advertise. This demonstration of profit will lead to a discussion of how people get money.

After experimenting with their own business, students should take a field trip to a nearby business. A retail store that would utilize some of the techniques the students had simulated would be a good example. Students should compare their records with the store's books. They could receive an introductory lesson in debits, credits, profit and loss.

Students could then take additional field trips to other types of businesses--both those that produce goods and those that produce services. The school should be studied as an example of the second category, since teachers, administrators, and counselors provide service. Cooks and printers produce consumer goods. Visits to factories and lawyers' offices can instigate a discussion of the distribution of income according to type of job and the training, skills, and talent required for different jobs.

To reintroduce the subject of land use, students should discuss their visits to the factories, power plants, refineries, etc., which use the land both as a resource and as a storer of waste, in terms of their relationship to the environment. They should make a list of ways nature is used and ways nature is misused. They should then revisit those industries to see what they left out of their lists. The teacher might ask them to look at their own school in this regard. Playgrounds use land as a resource; the smoke stack from the incinerator uses the air for disposal purposes. Students can be assigned research projects to report on causes of pollution, erosion, and species extinction in their vicinity. This will introduce them to the use of research techniques. Small cameras might be used to document reports.

Individual and industry use and misuse of land will lead logically to a final unit on the reservation's use of land. The land will be studied both as a resource in its raw form, and as a source of income in its final form. The individual's role in this income-earning process would also be explored. A map of economic activity on other reservations as well as pen pal letters would be good activities for comparative studies of land use.

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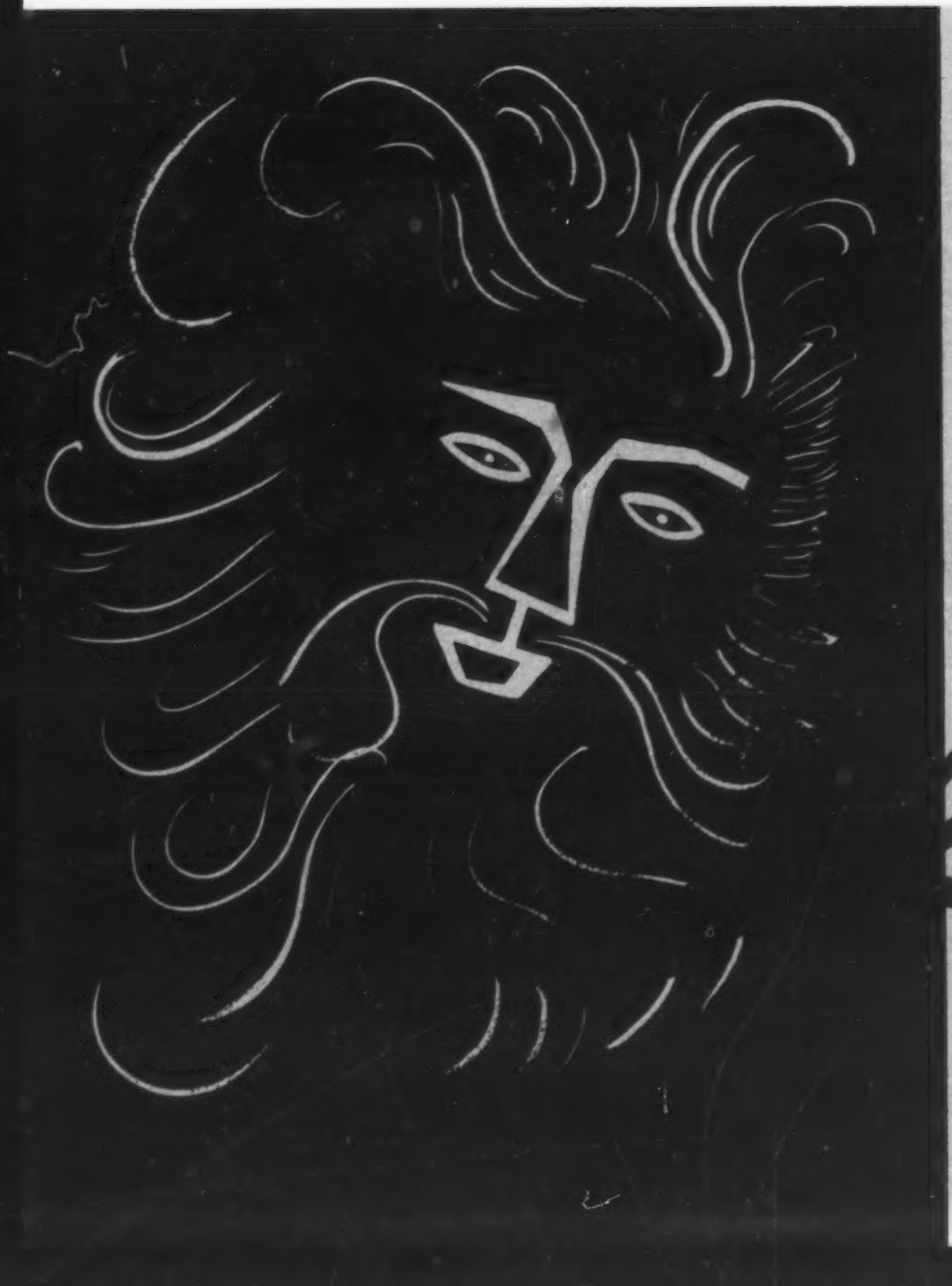
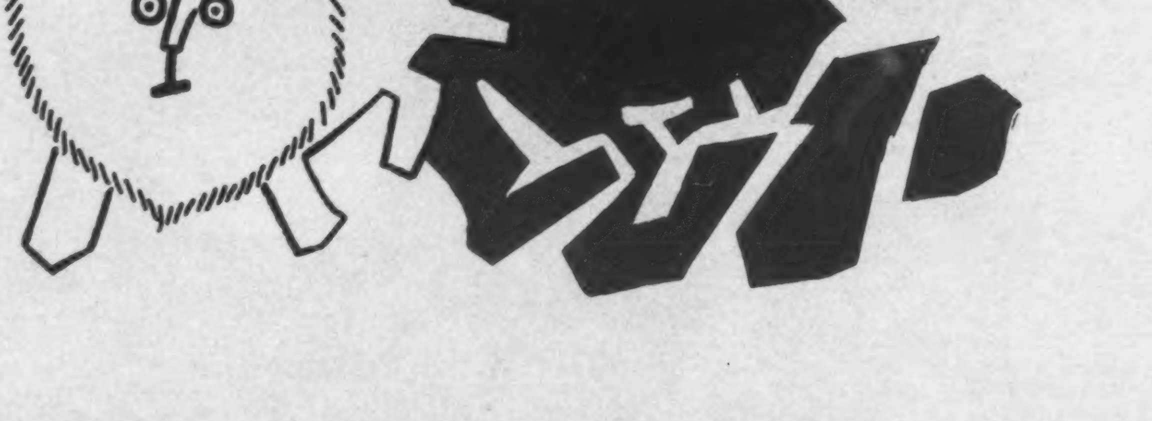
Appendix A

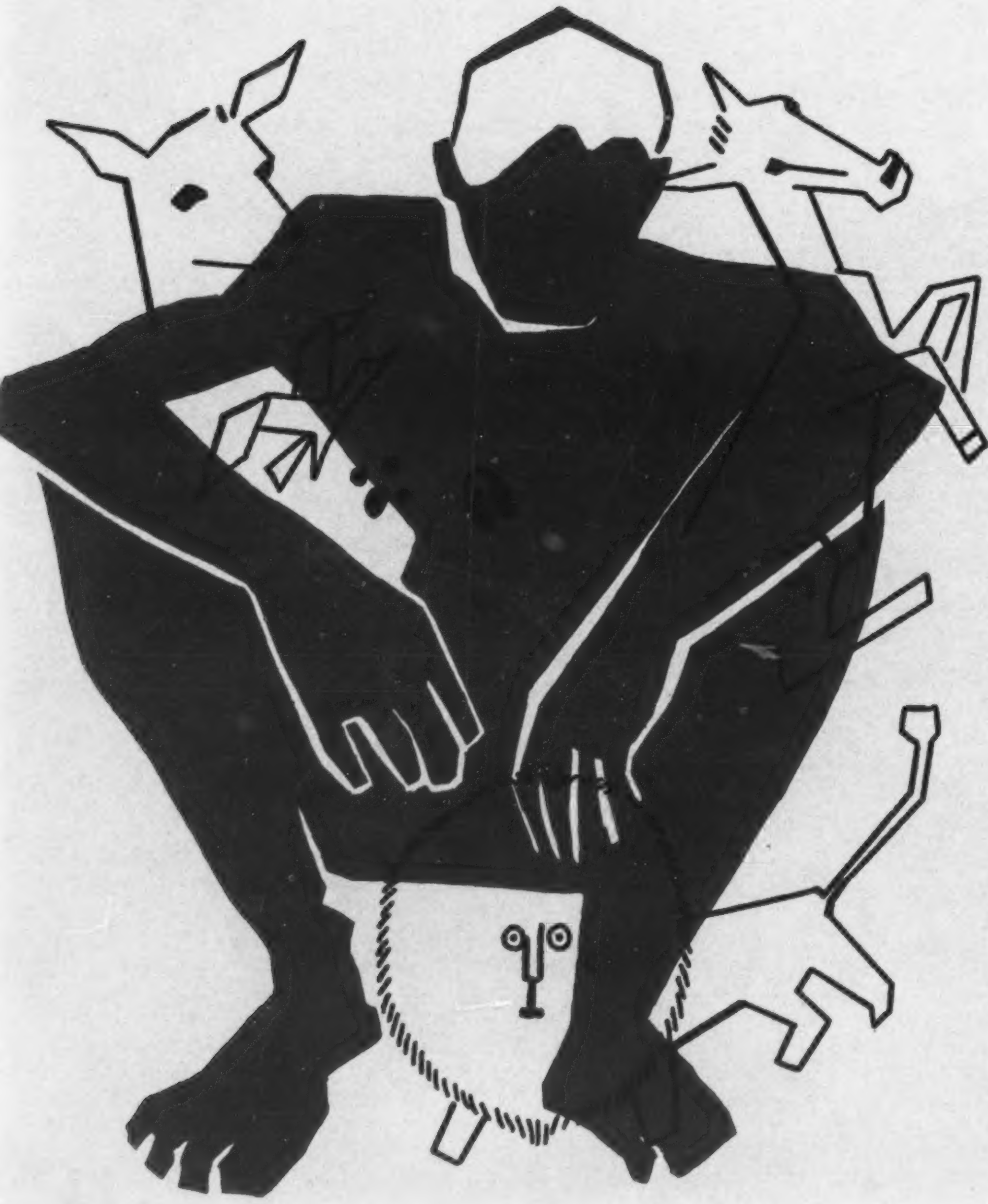
"LONG AGO WHEN THERE WAS DARKNESS AND ALL THINGS WERE YET TO BE MADE"



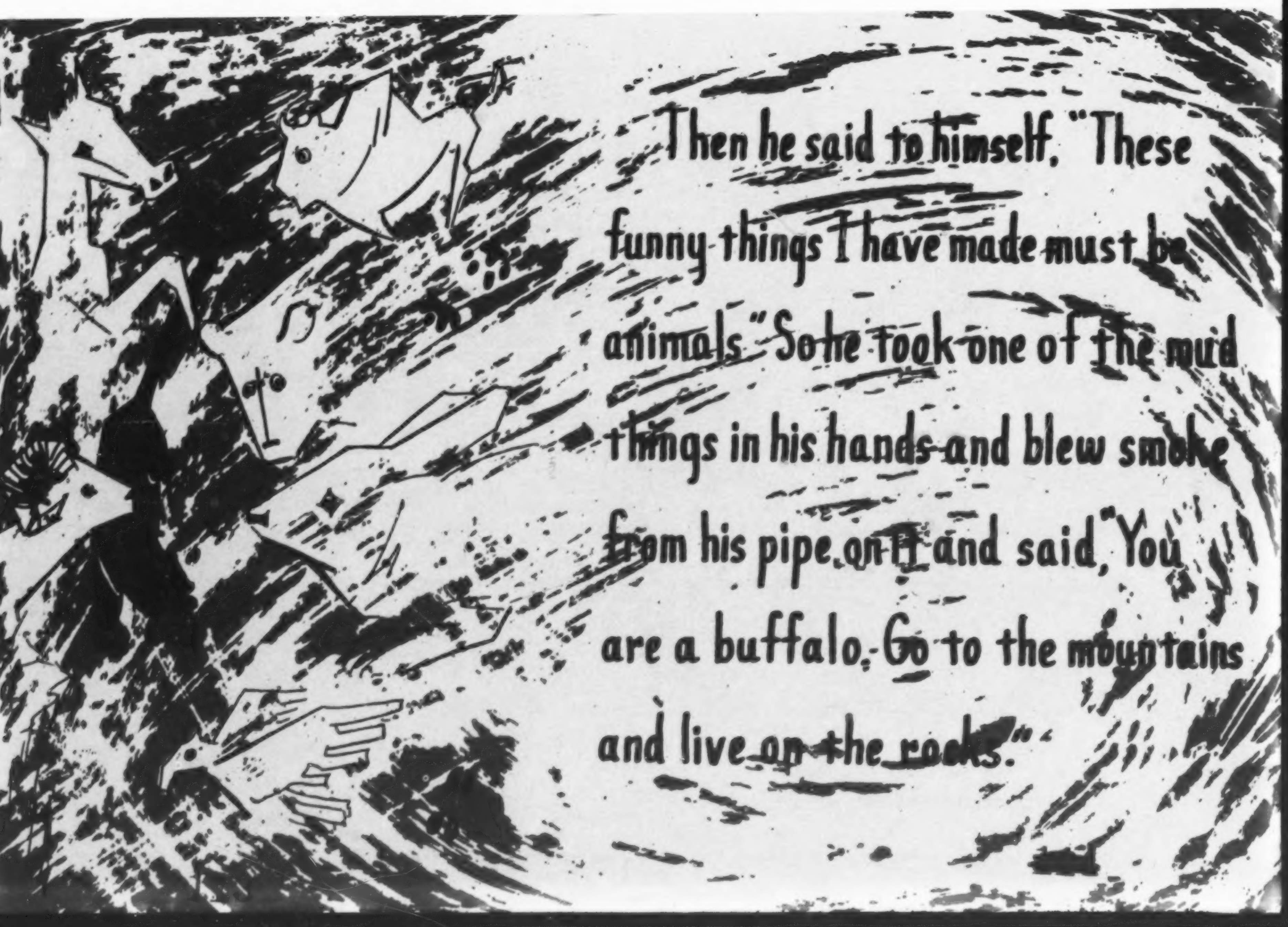
The Great One was making the sky and earth and needed a helper. He called his helper Napi.



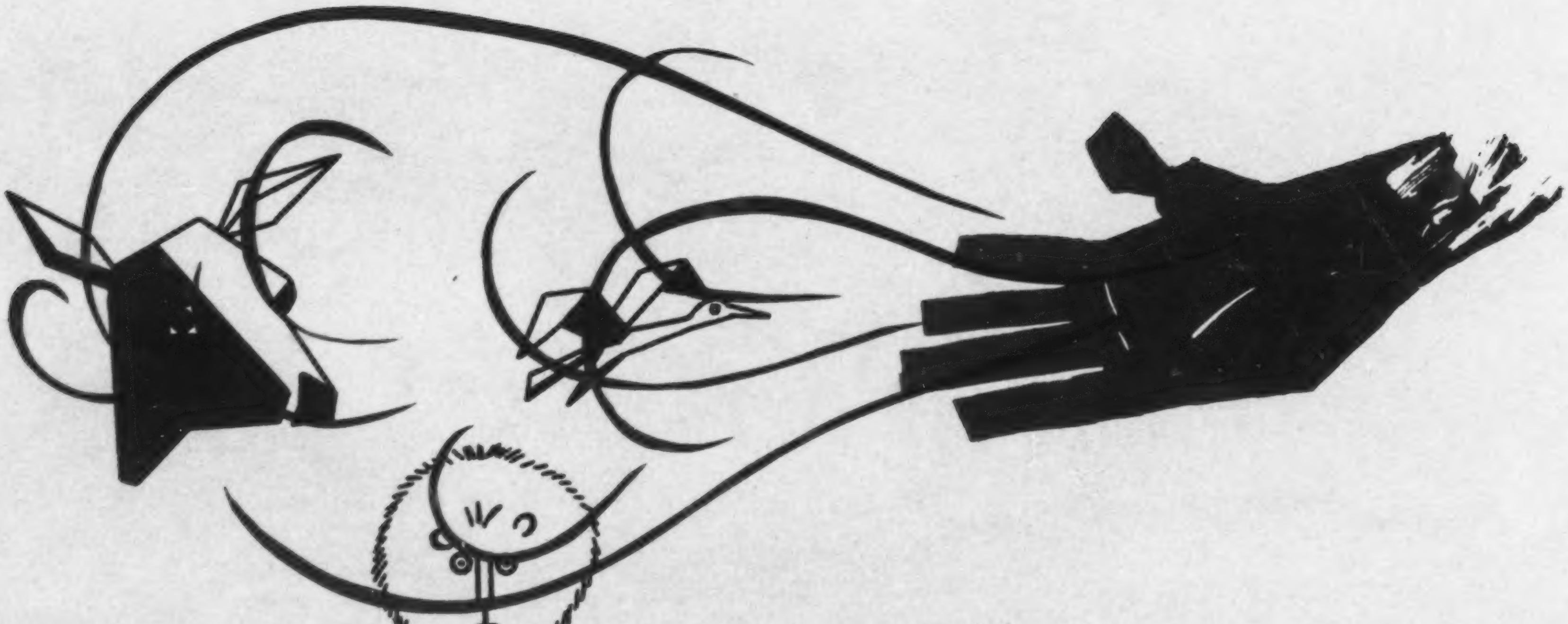
The Great One told Napi to make some birds and animals to put on the earth.



One day Napi was sitting by the water smoking his long pipe. He thought about the animals he was to make. As he thought he began to play with the mud. He made many little things and put them on a rock.



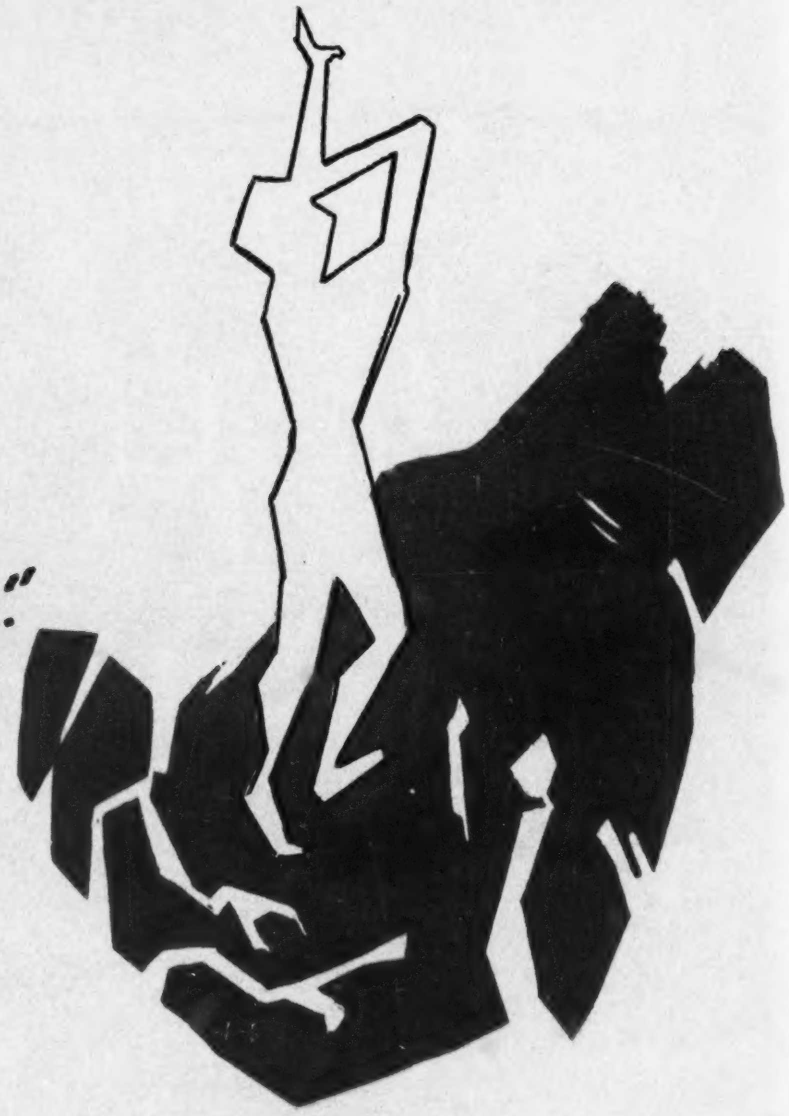
Then he said to himself, "These funny things I have made must be animals." So he took one of the mud things in his hands and blew smoke from his pipe on it and said, "You are a buffalo. Go to the mountains and live on the rocks."

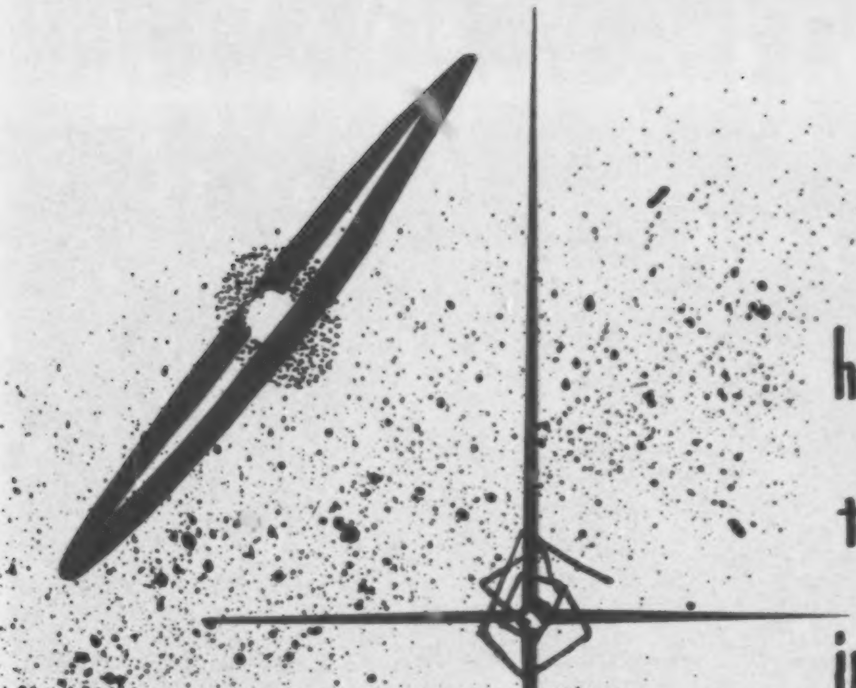


One by one he blew smoke on the other animals and told them what they were and where they were to live.

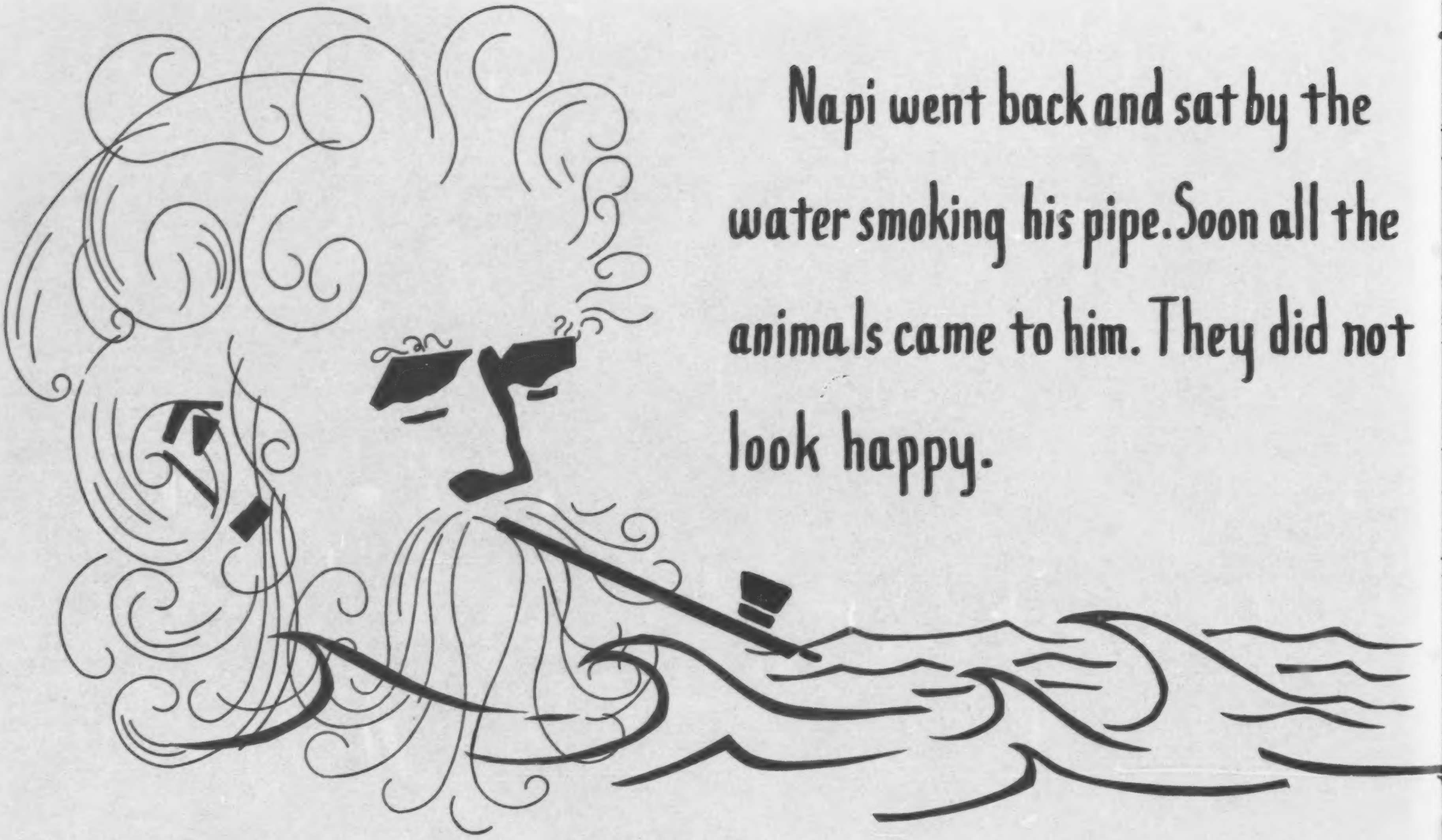
Napi was very pleased. He made another thing from the mud in his hand. It was not very big. He blew smoke on it and said. "This thing I have made is man."

And that is how the animals and man came to live on this earth.





Napi went to the Great One and asked him to see the animals on the earth. But the Great One was busy putting stars in the sky. He said to Napi, "Go back to the earth and see if you have done a good thing."

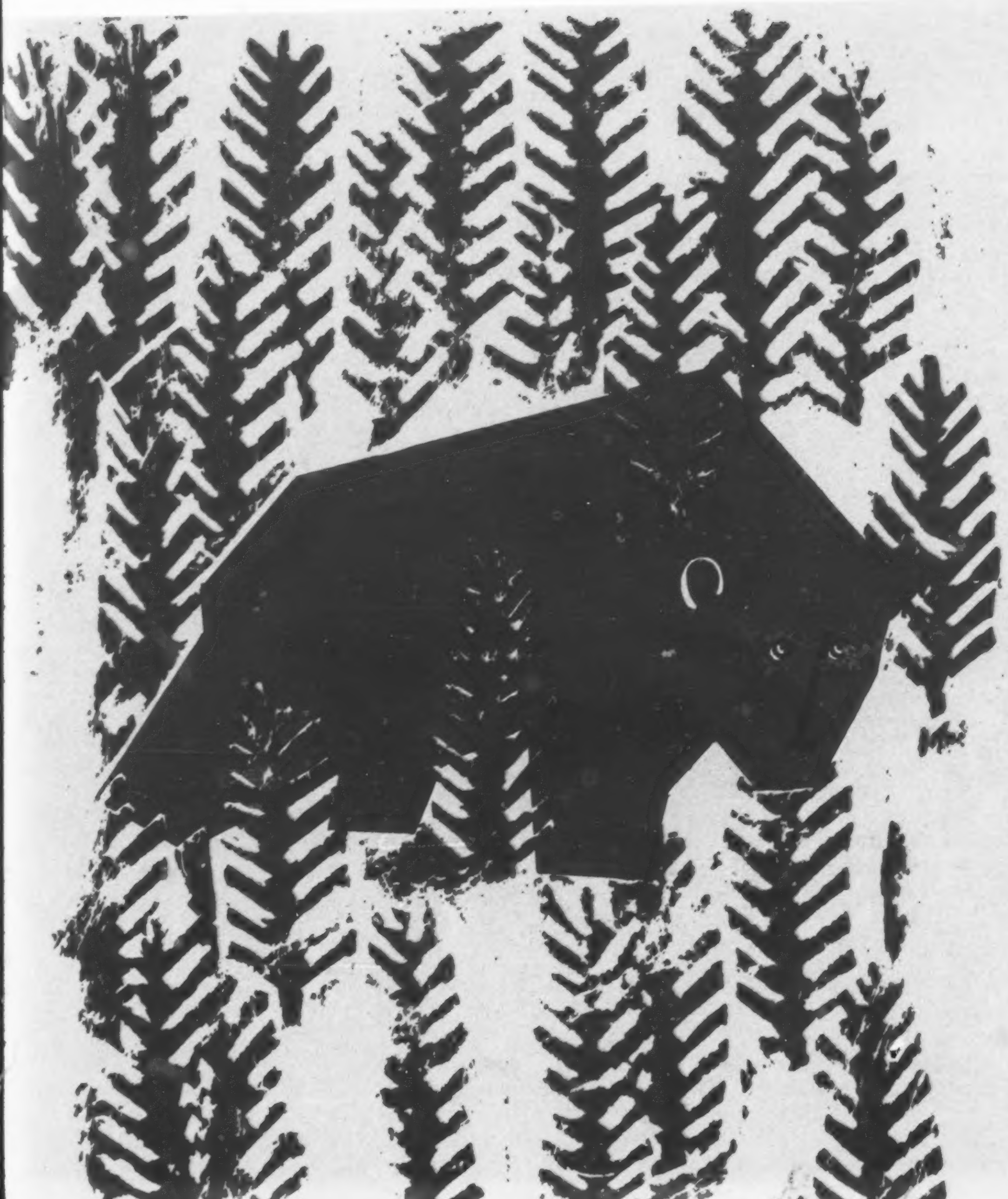


Napi went back and sat by the water smoking his pipe. Soon all the animals came to him. They did not look happy.

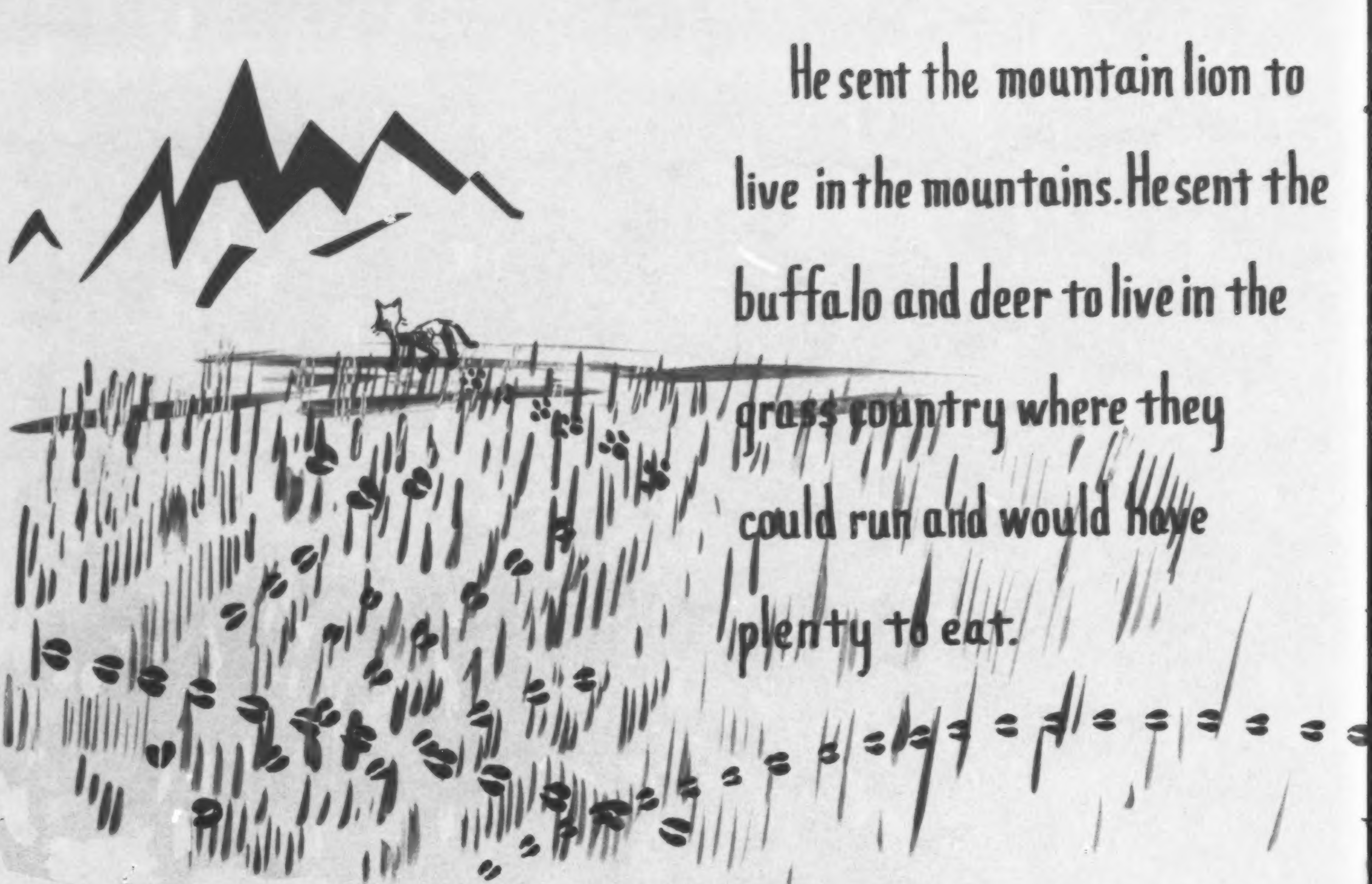
"The mountains are full of rocks," said the buffalo. "I cannot walk on rocks with the kind of feet you gave me."

"I like grass to eat," said the deer, "but there is not much grass in the mountains. I am not happy."

Then all the other animals began to talk at once. Not one of them was happy with the place that Napi had told them to live. So Napi talked with each animal asking it what it liked to eat, and where it liked to sleep. And then Napi sent the animals to live on the earth where they would be happy.

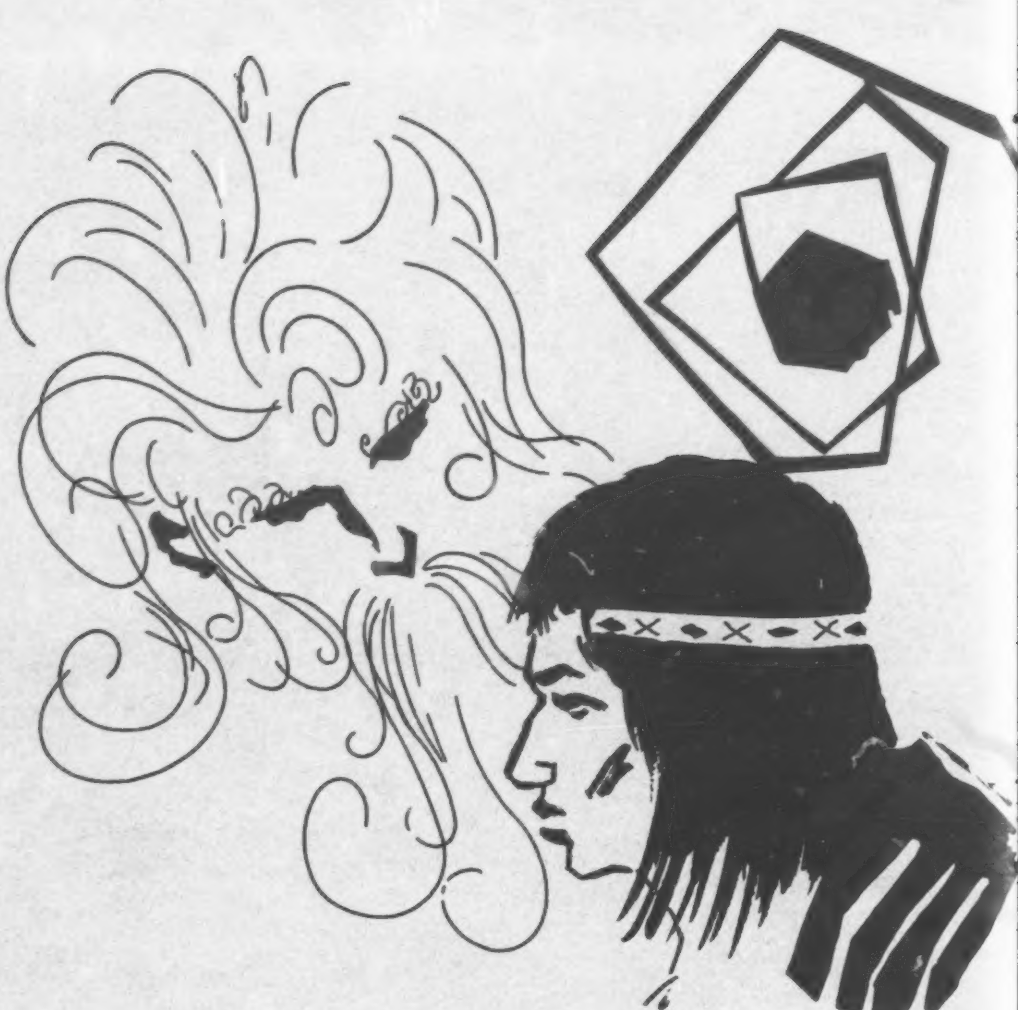


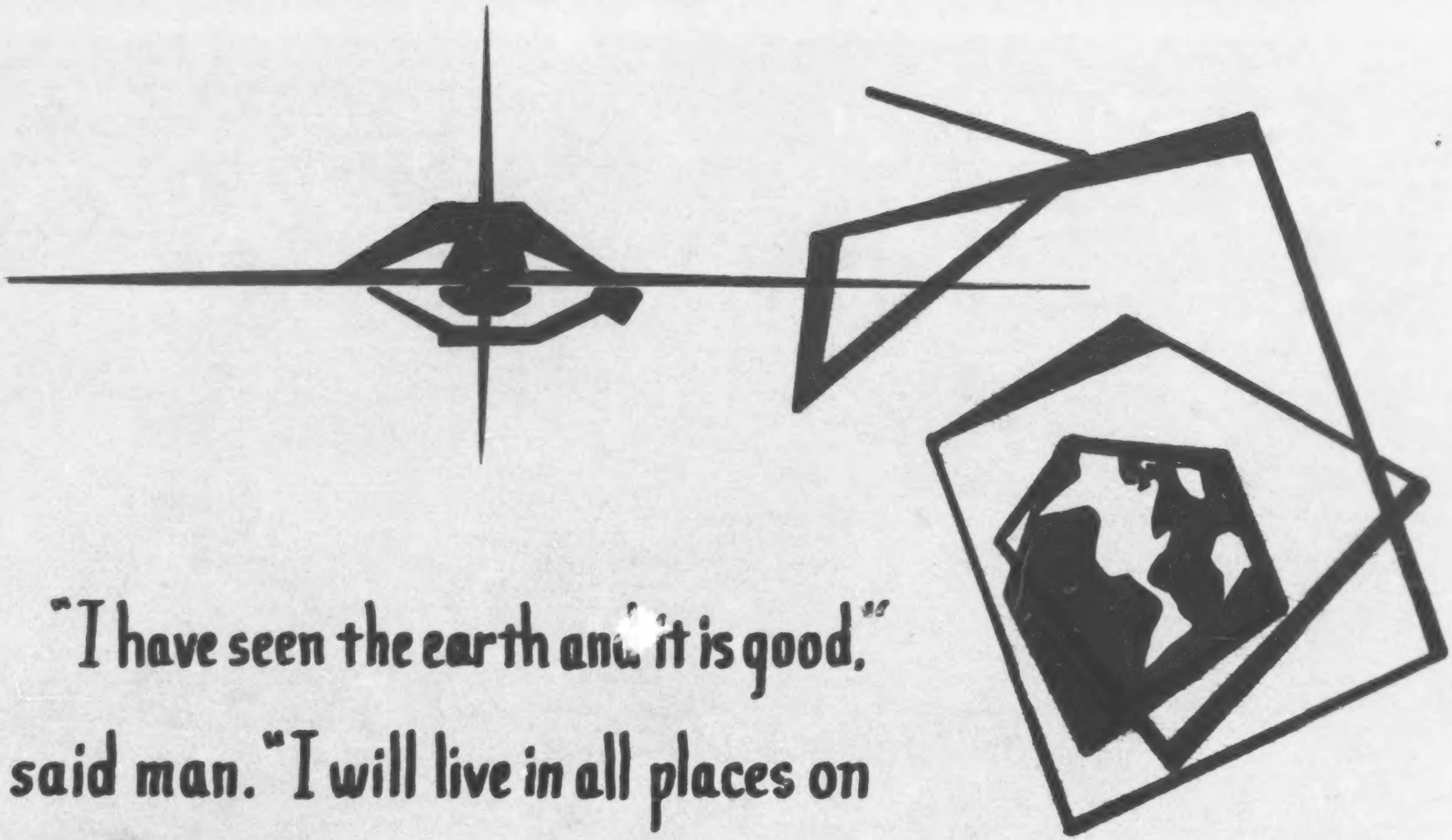
He sent the bear to live in the woods, and he told the bear how to go to sleep when the snow came.



He sent the mountain lion to live in the mountains. He sent the buffalo and deer to live in the grass country where they could run and would have plenty to eat.

When the animals had gone away, Napi looked at man and asked, "Where do you want to live?"





"I have seen the earth and it is good," said man. "I will live in all places on the earth."

And that is why the animals live on that part of the earth where they are happy, and why man can be found on all parts of the earth.

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Division of Education
Bureau of Indian Affairs
Department of the Interior
Washington, D.C. 20242

By:

The Project NECESSITIES Staff of
Abt Associates, Inc.
Cambridge, Massachusetts
P.O. Box 575
Brigham City, Utah 84302

The Blackfoot story of the creation of man and animals can be found in many versions

The version in this book is based on: "Napi Makes the Animals" from **Teepee Stories** by Edward and Marguerite Dolch. The Girard Press: Champaign, Ill. 1956, and appears with the permission of the authors and publisher.

Patty Lee Harjo a Seneca-Seminole, adapted the story for illustration in the summer of 1969 when she was a junior consultant to Project NECESSITIES. She is currently studying museology at the University of Colorado.

The story is illustrated by Jason Chee, the Project artist and illustrator. Mr. Chee is a member of the Navajo tribe.

Appendix B

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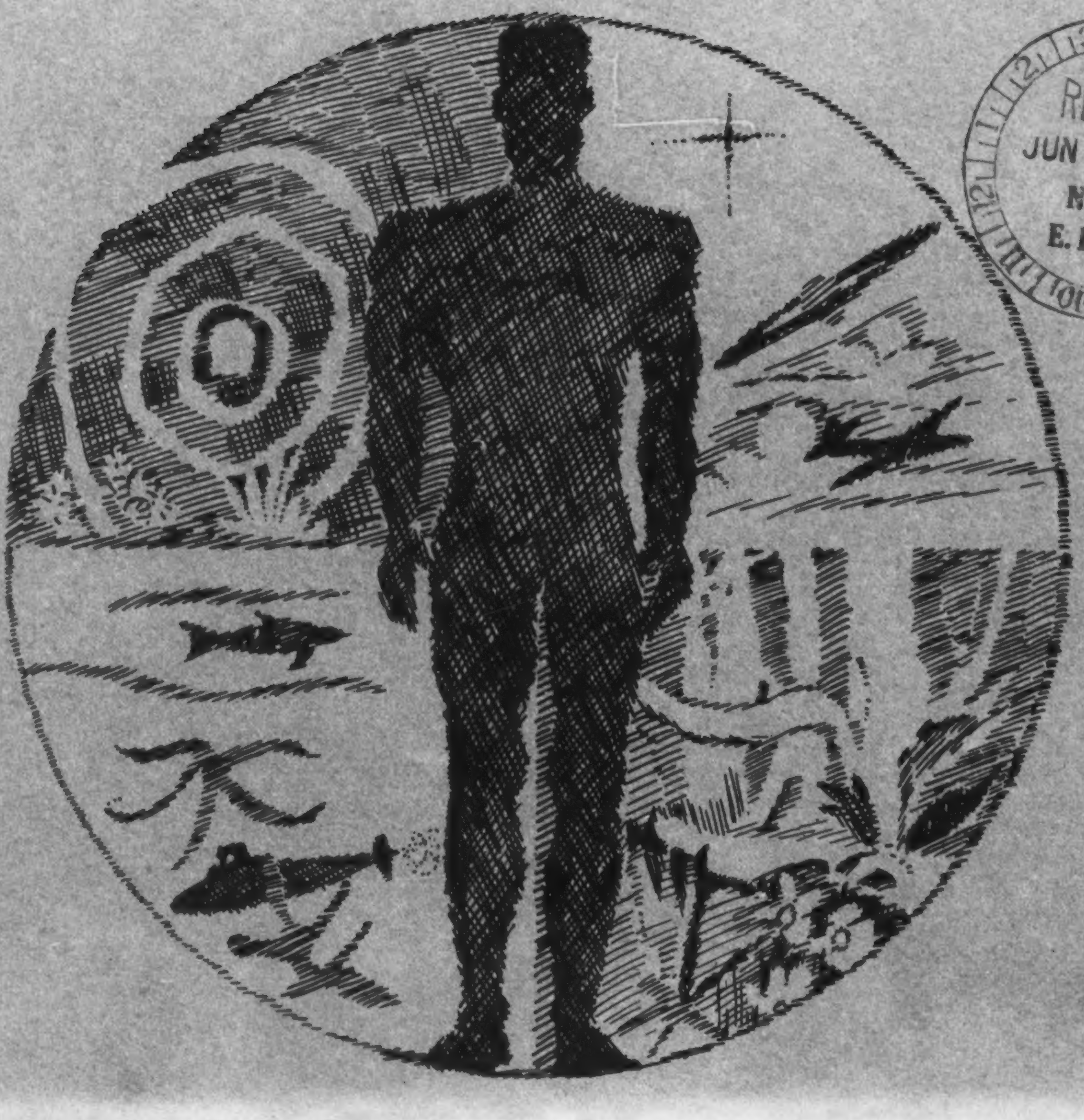
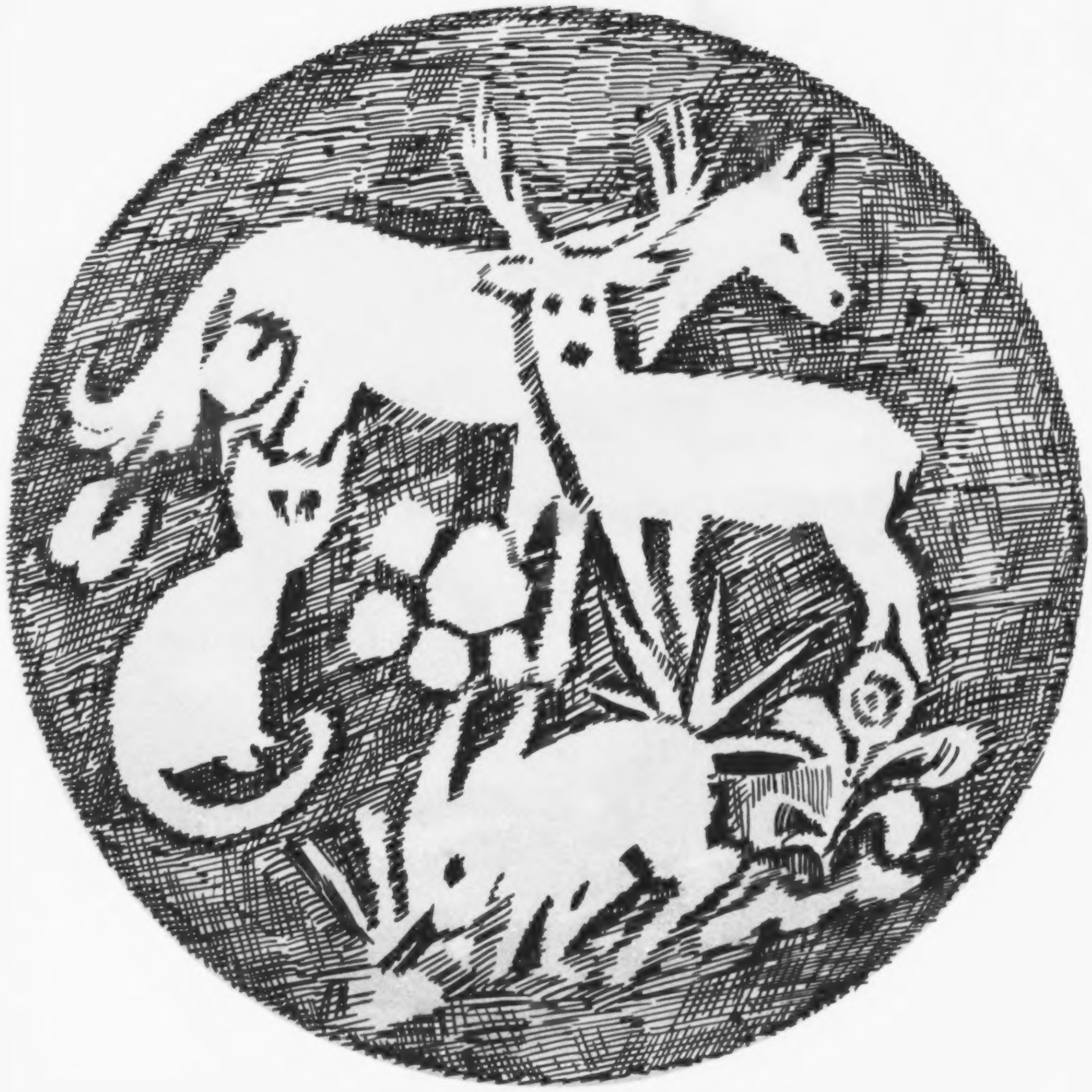
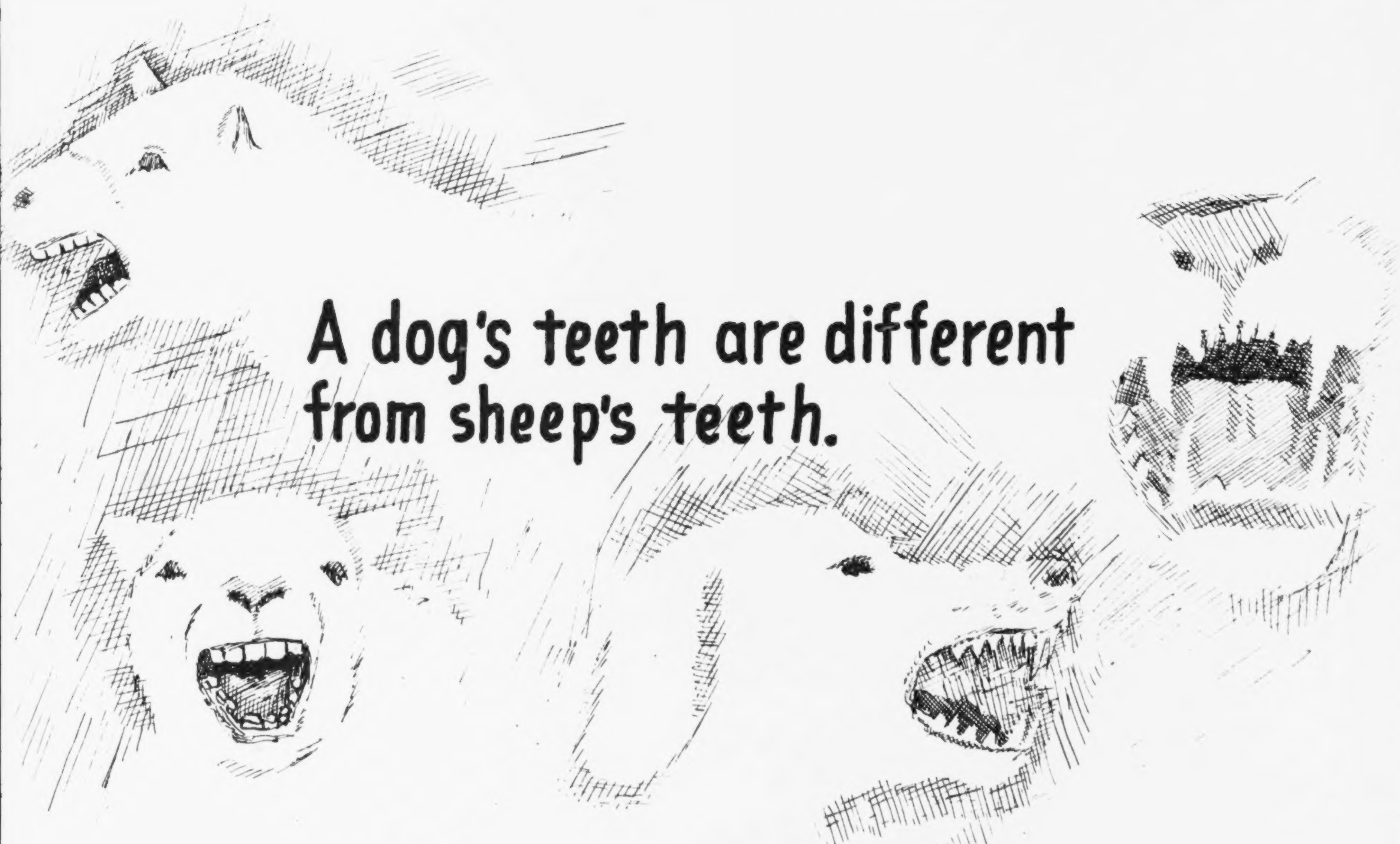


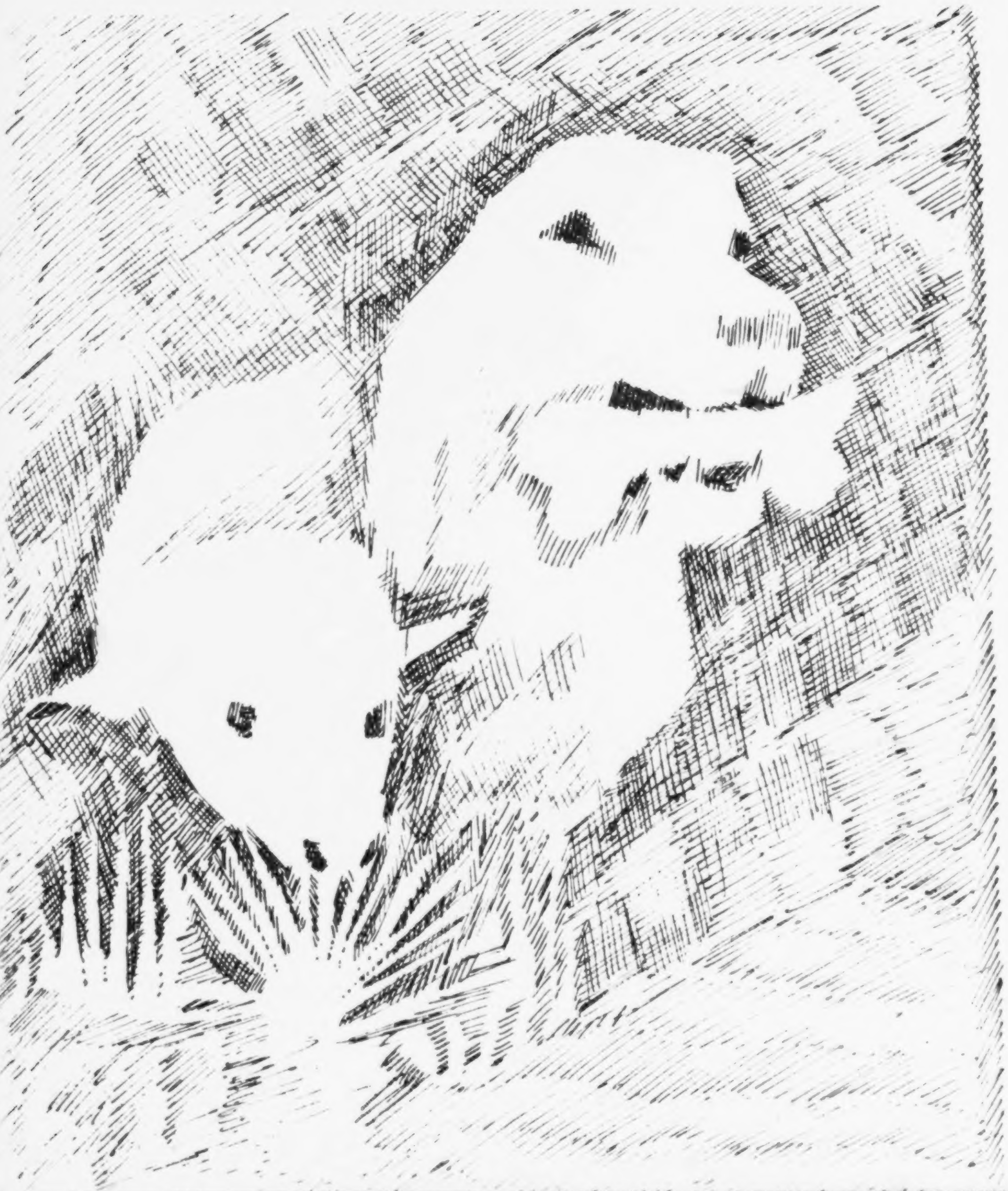
Animals
Climate
and
Terrain



Animals are different from each other.

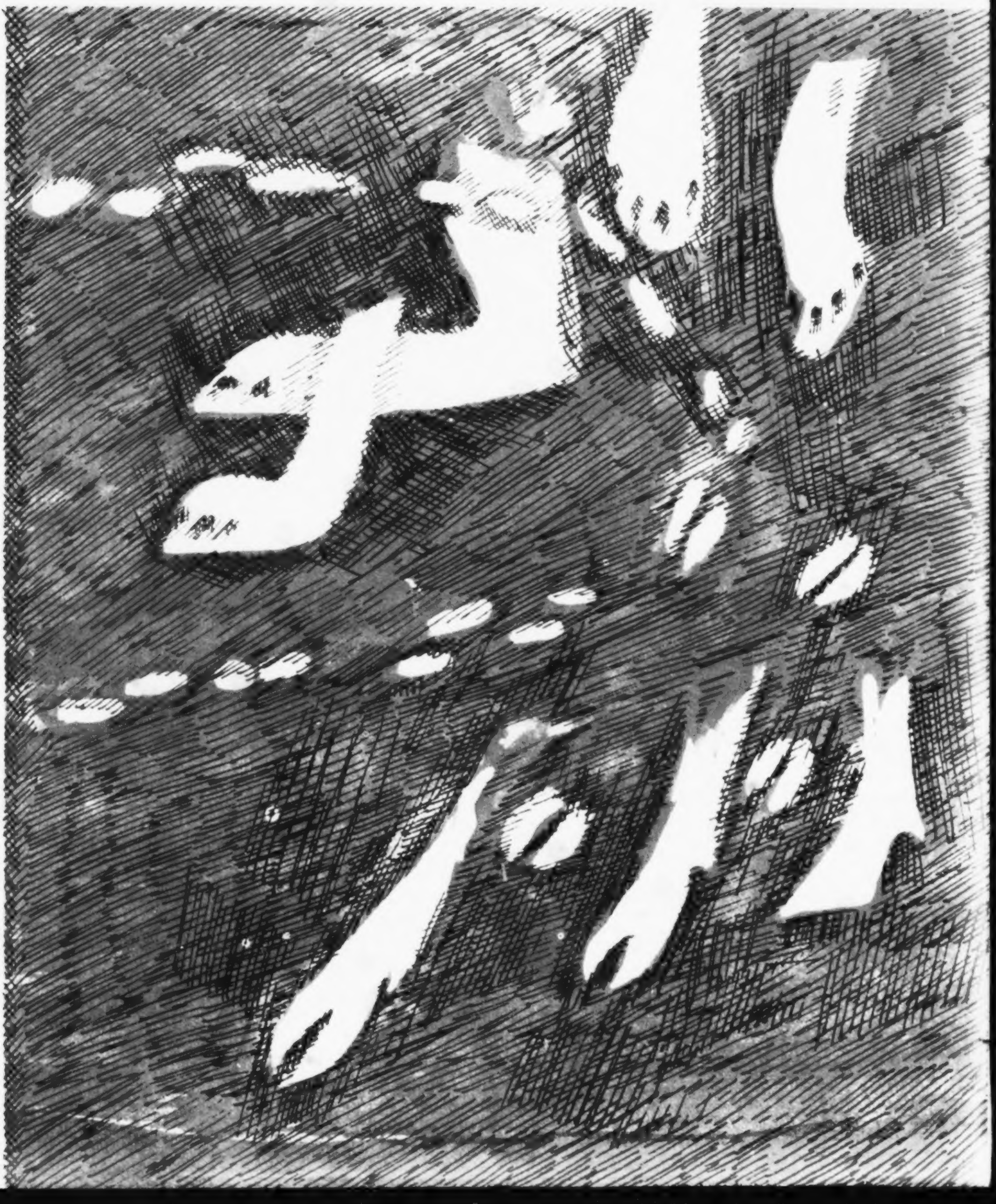


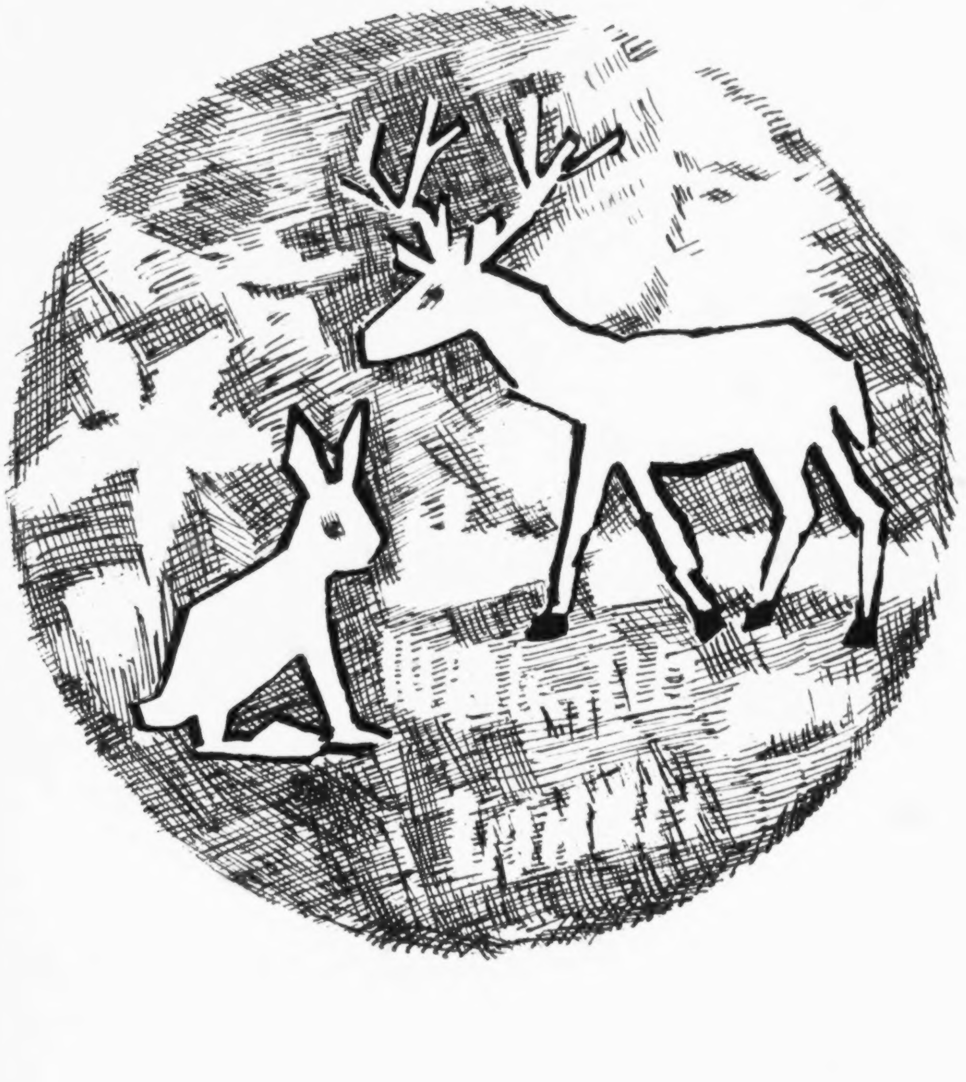
A dog's teeth are different from sheep's teeth.



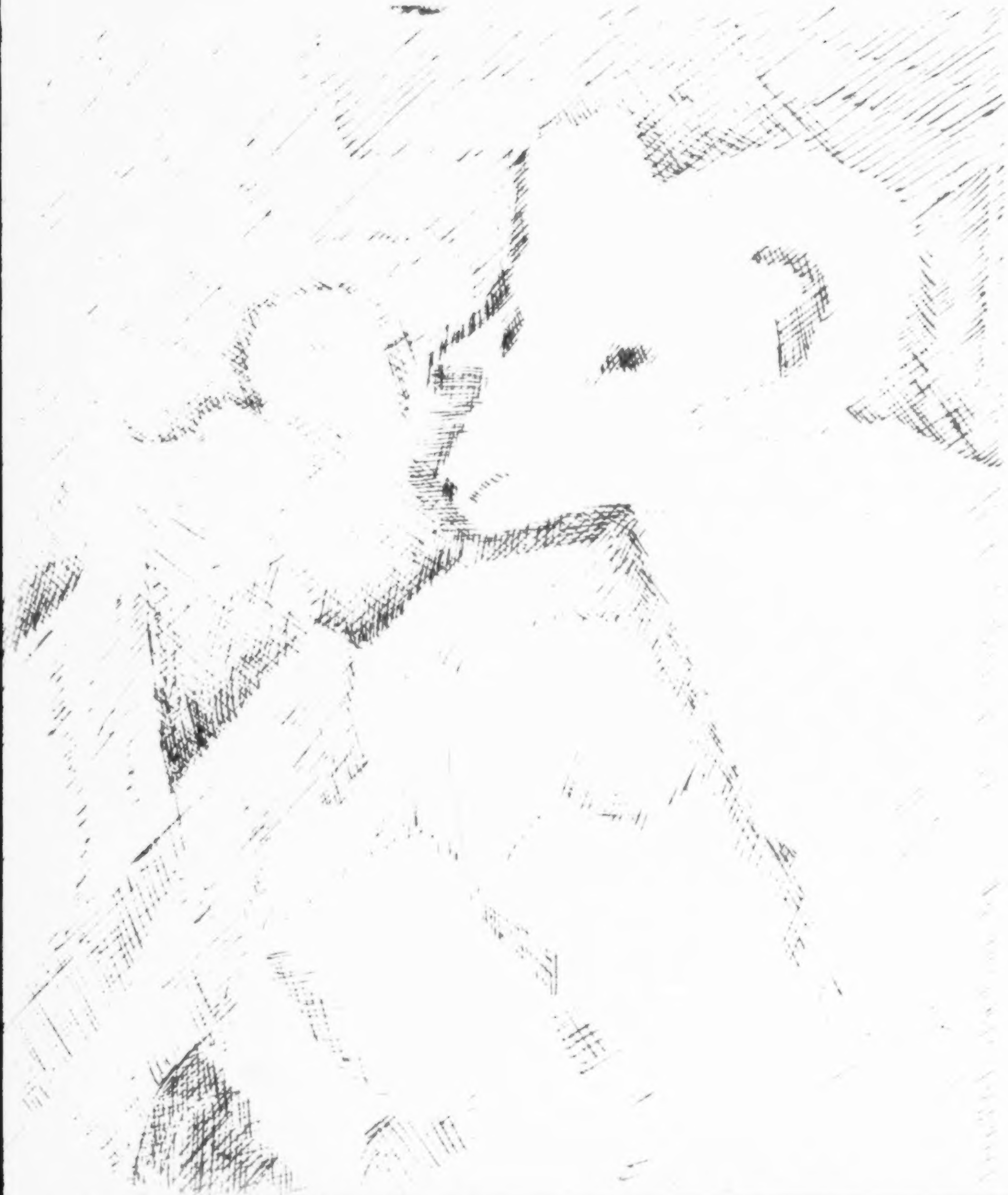
Because they do different things.

Rabbit paws are different from deer hooves



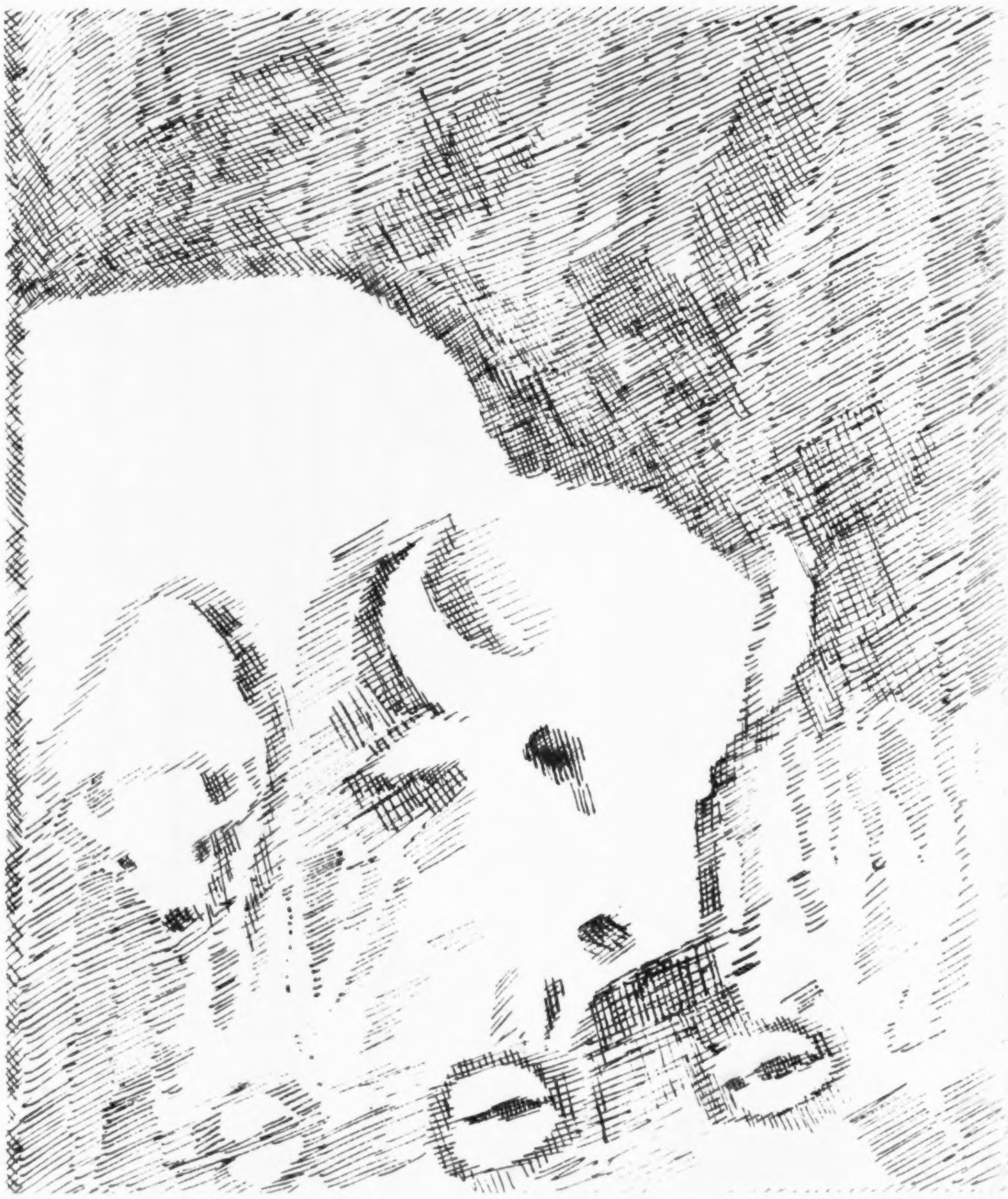


Because they do
different things.

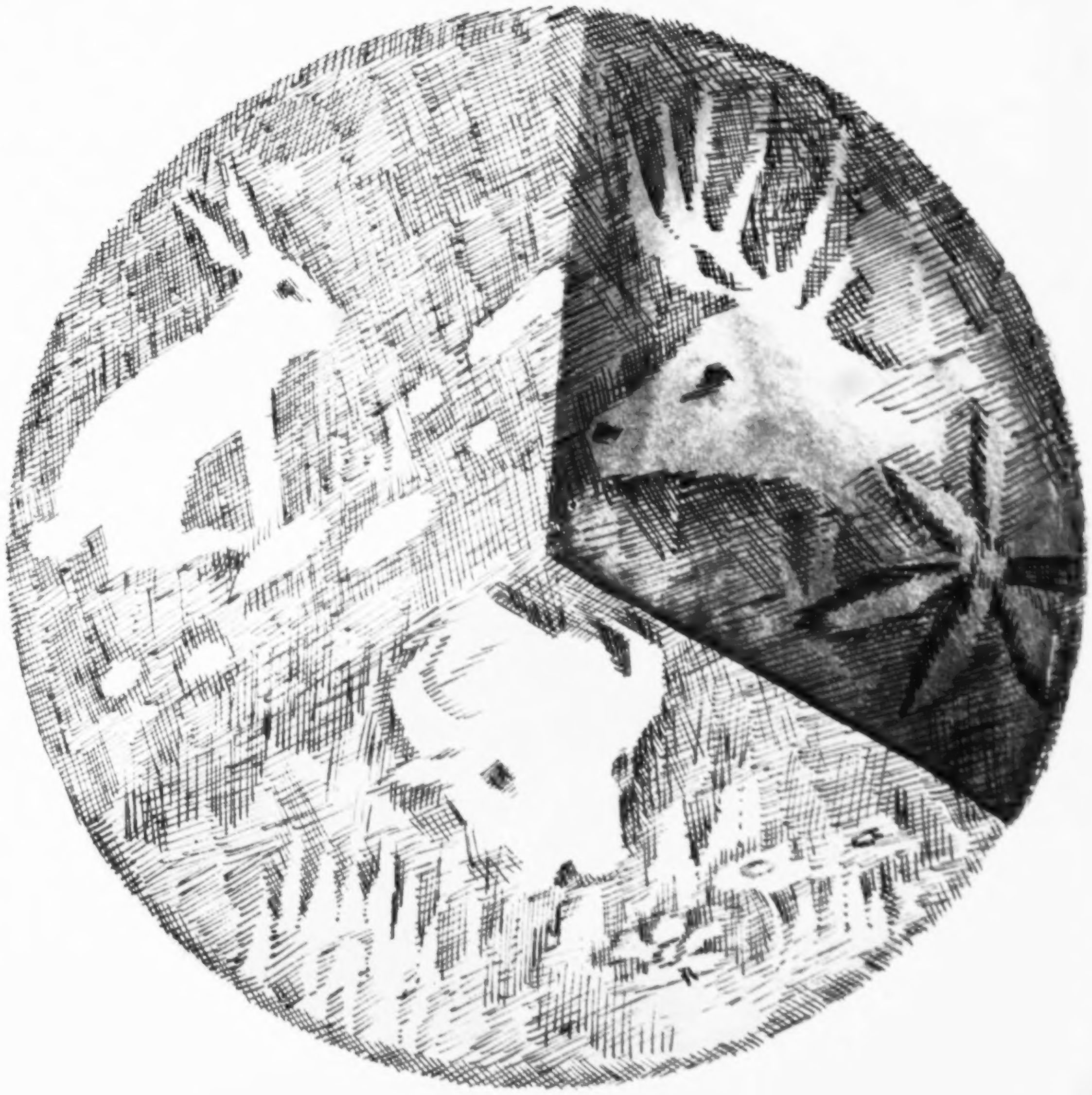


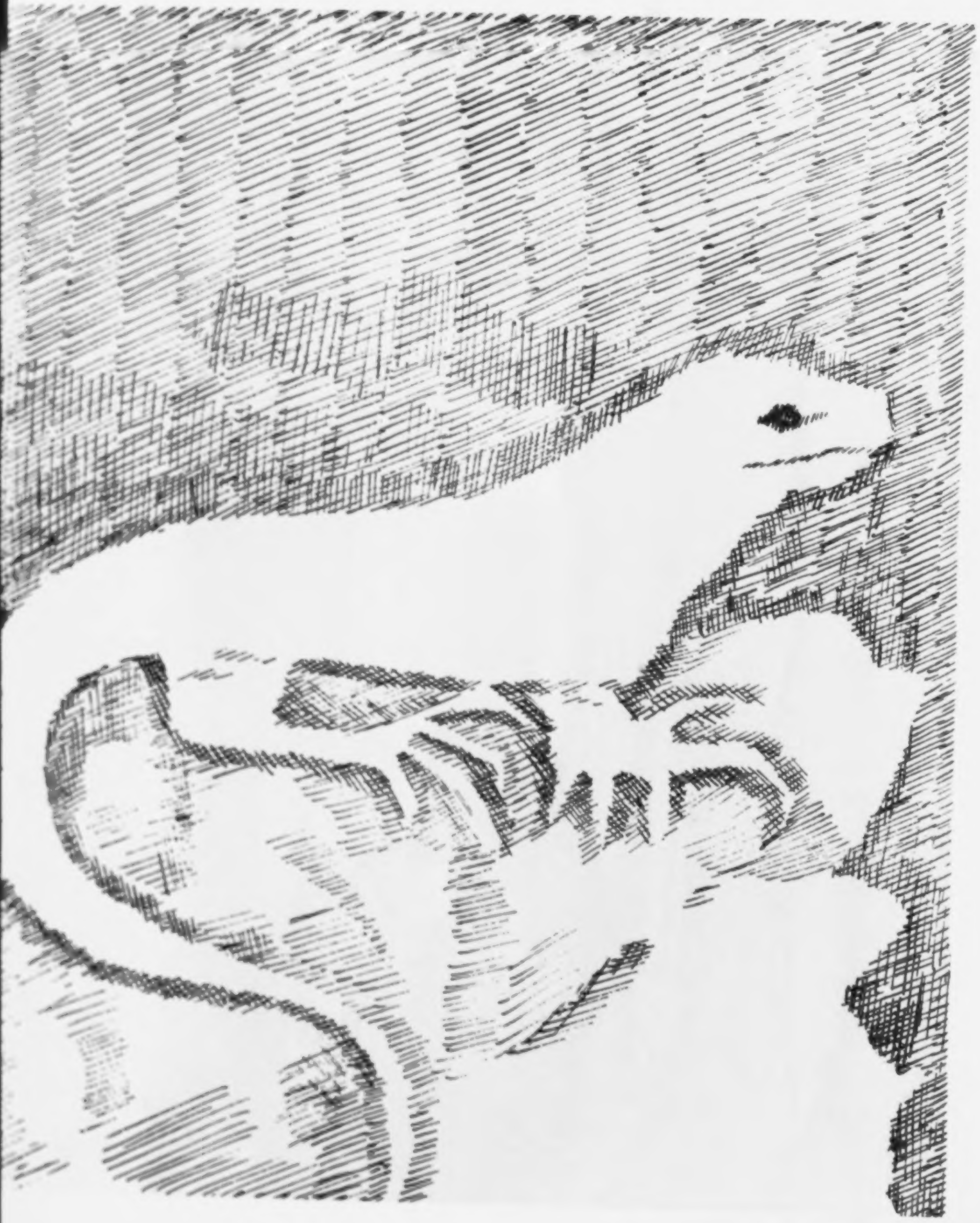
Mountain sheep live best on steep rocky mountains

Buffalo live best on the plains.

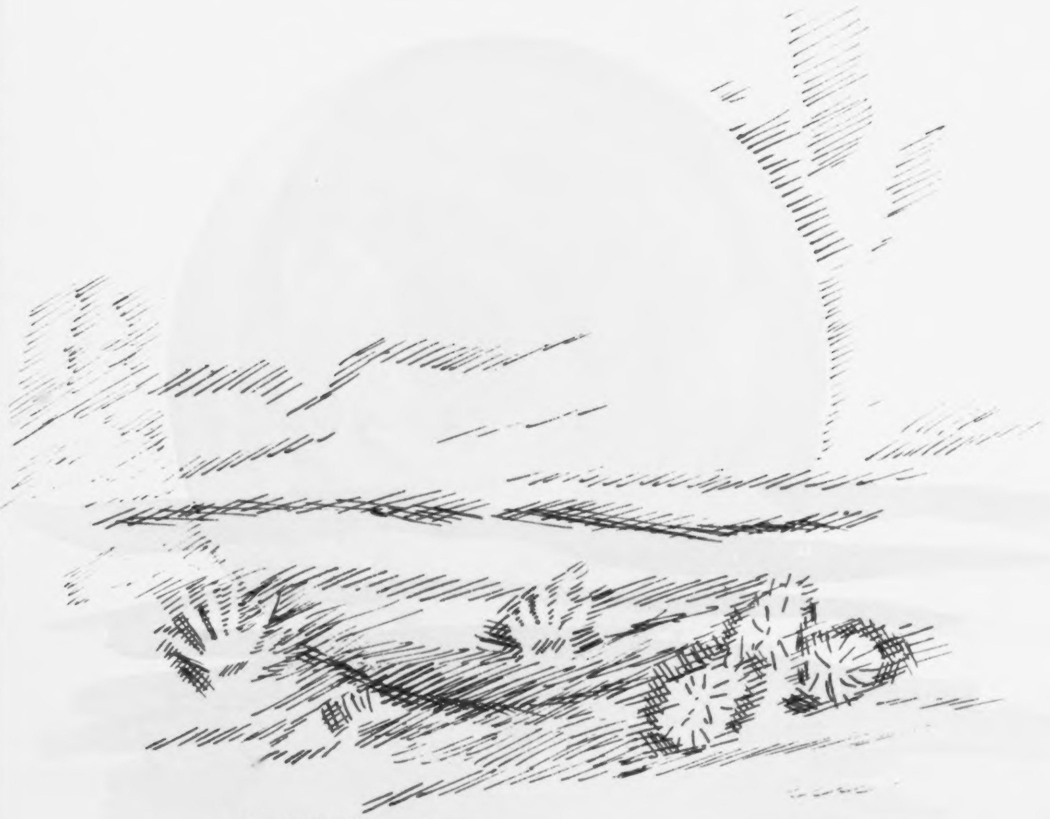


All animals have learned to live best in certain climates and terrain.

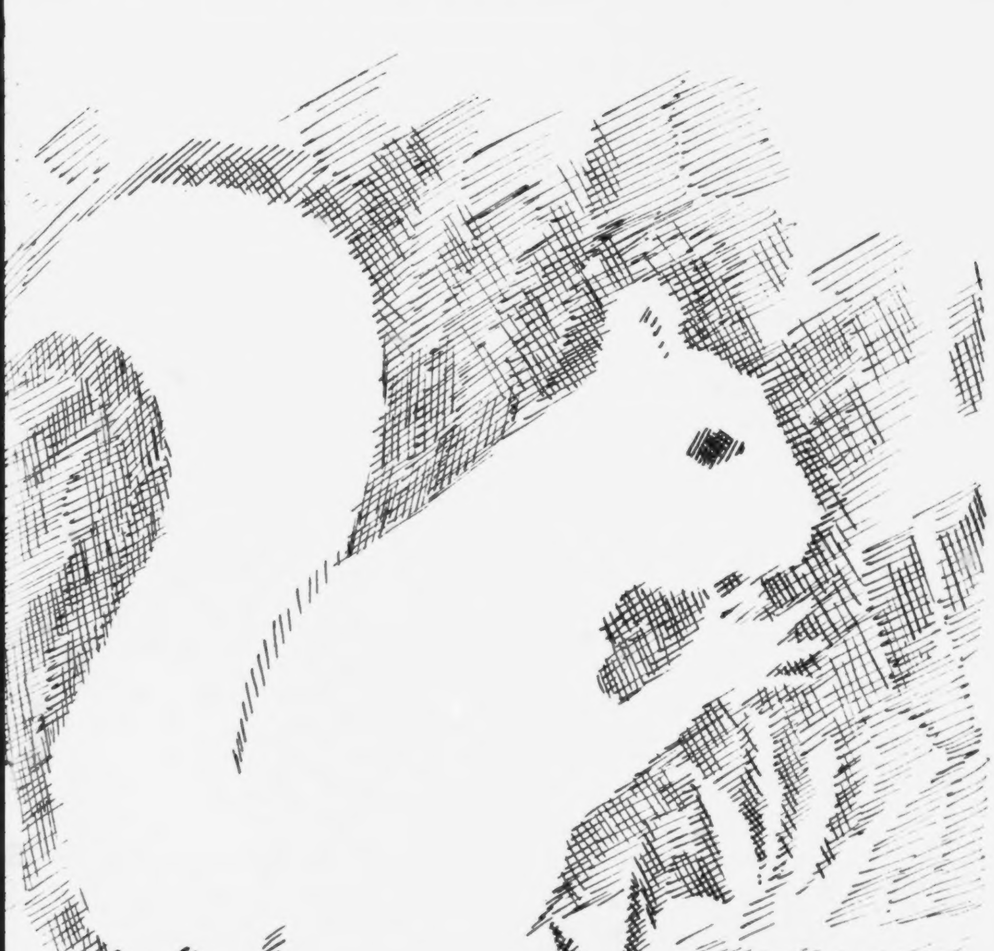




The lizard of arid western states likes living on the south slopes of mountains.

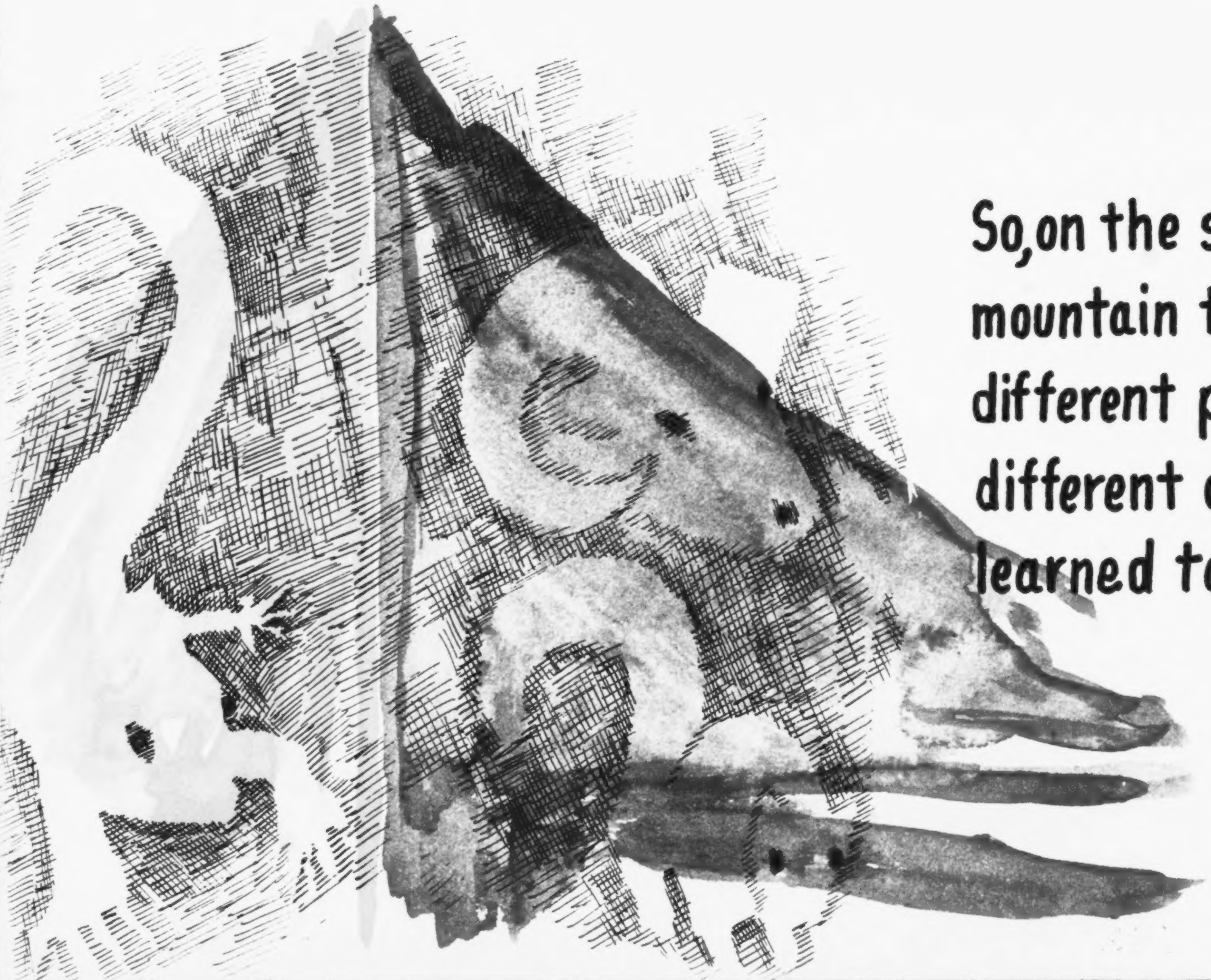


Southern slopes
are hot and dry.



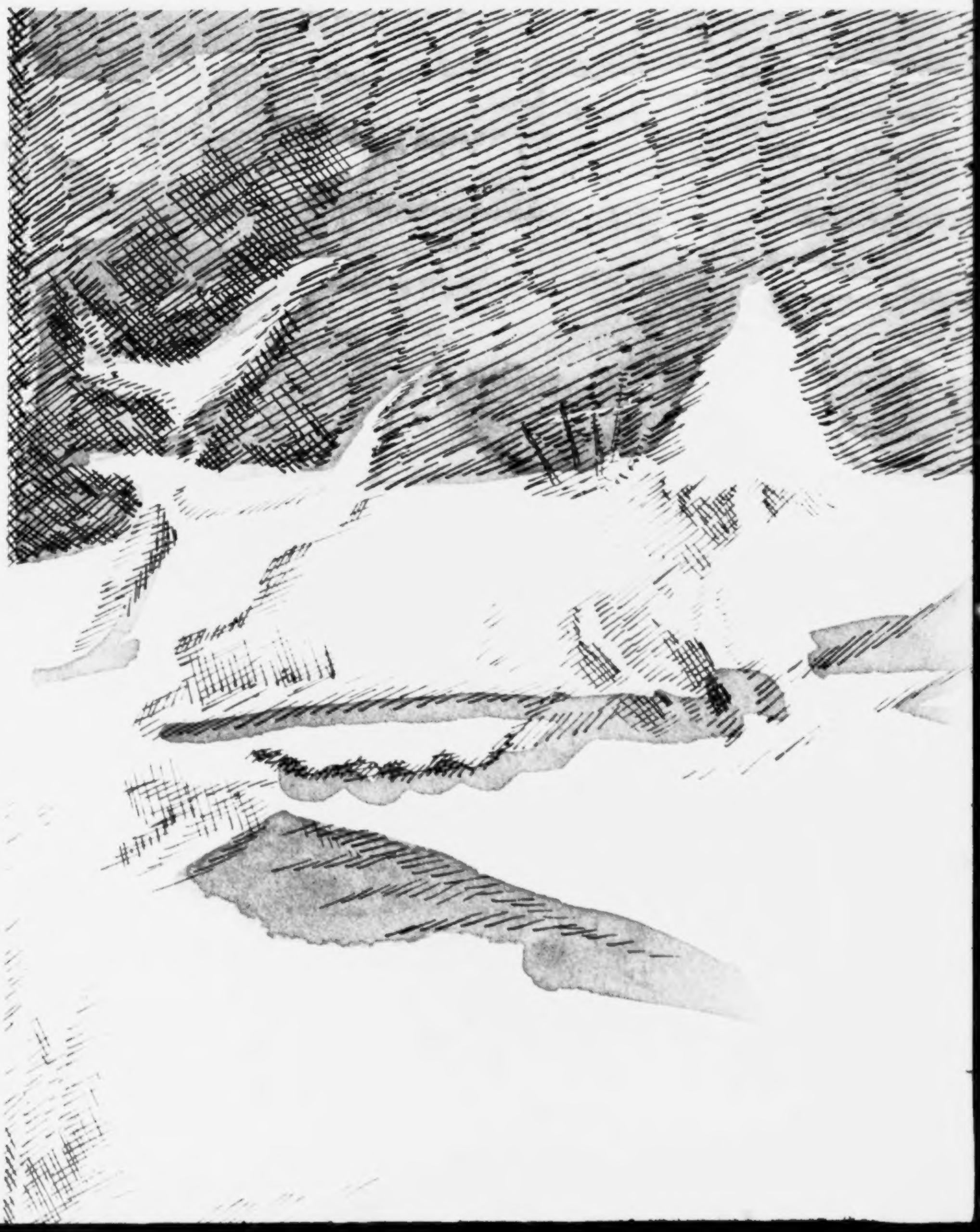
Squirrels prefer the northern slope of the same mountains.

Northern slopes are cool and have trees and shrubs.

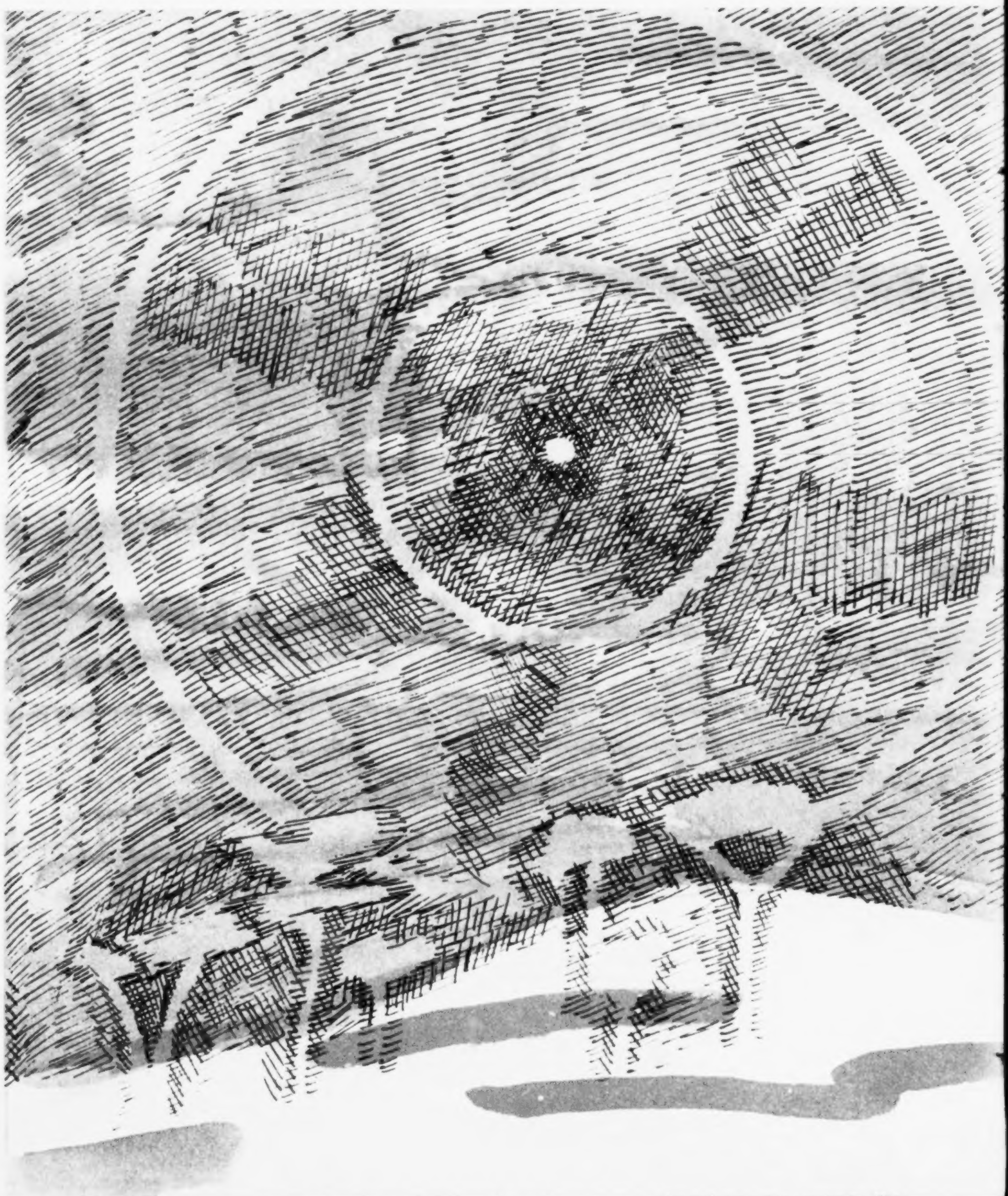


So, on the same mountain there are different places where different animals have learned to live.

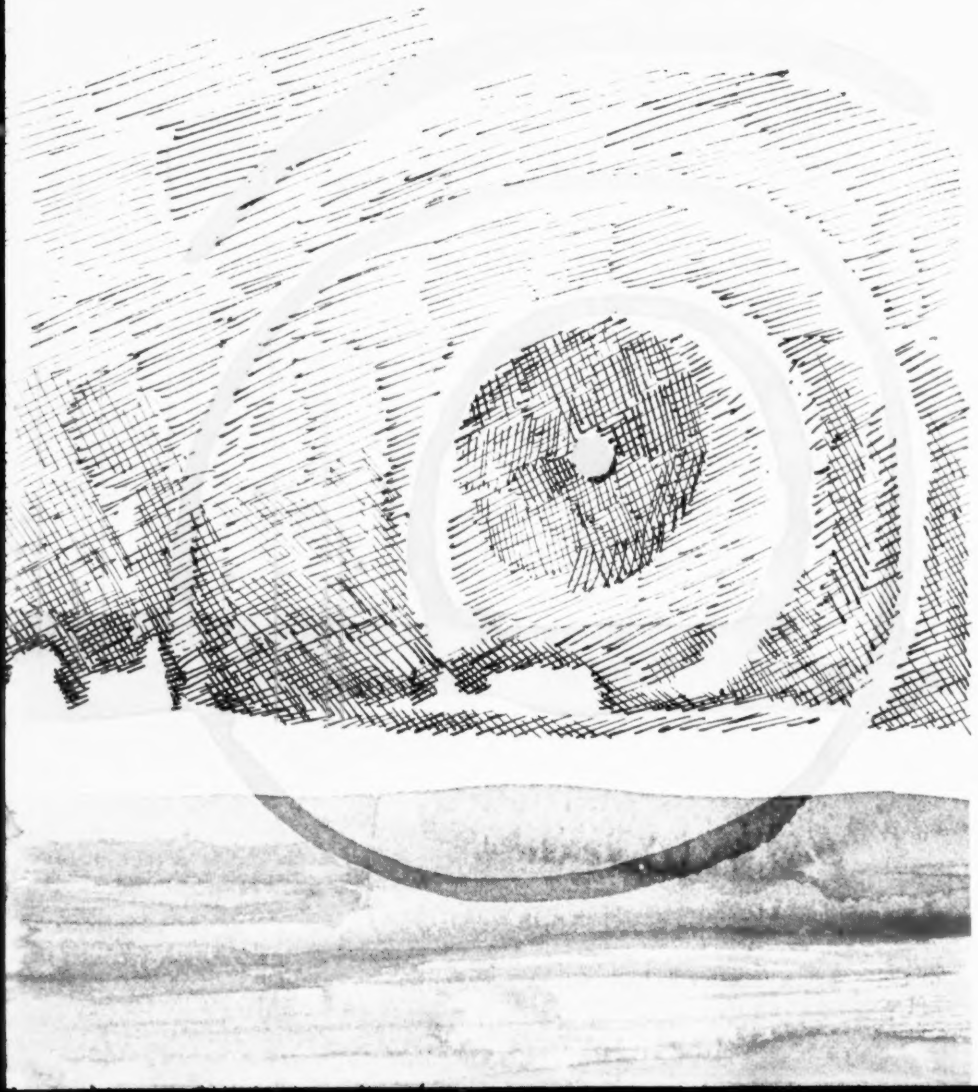
One reason that north slopes and south slopes are different is that western states get most of their moisture during the winter.



During the winter
the earth tilts
away from the sun.



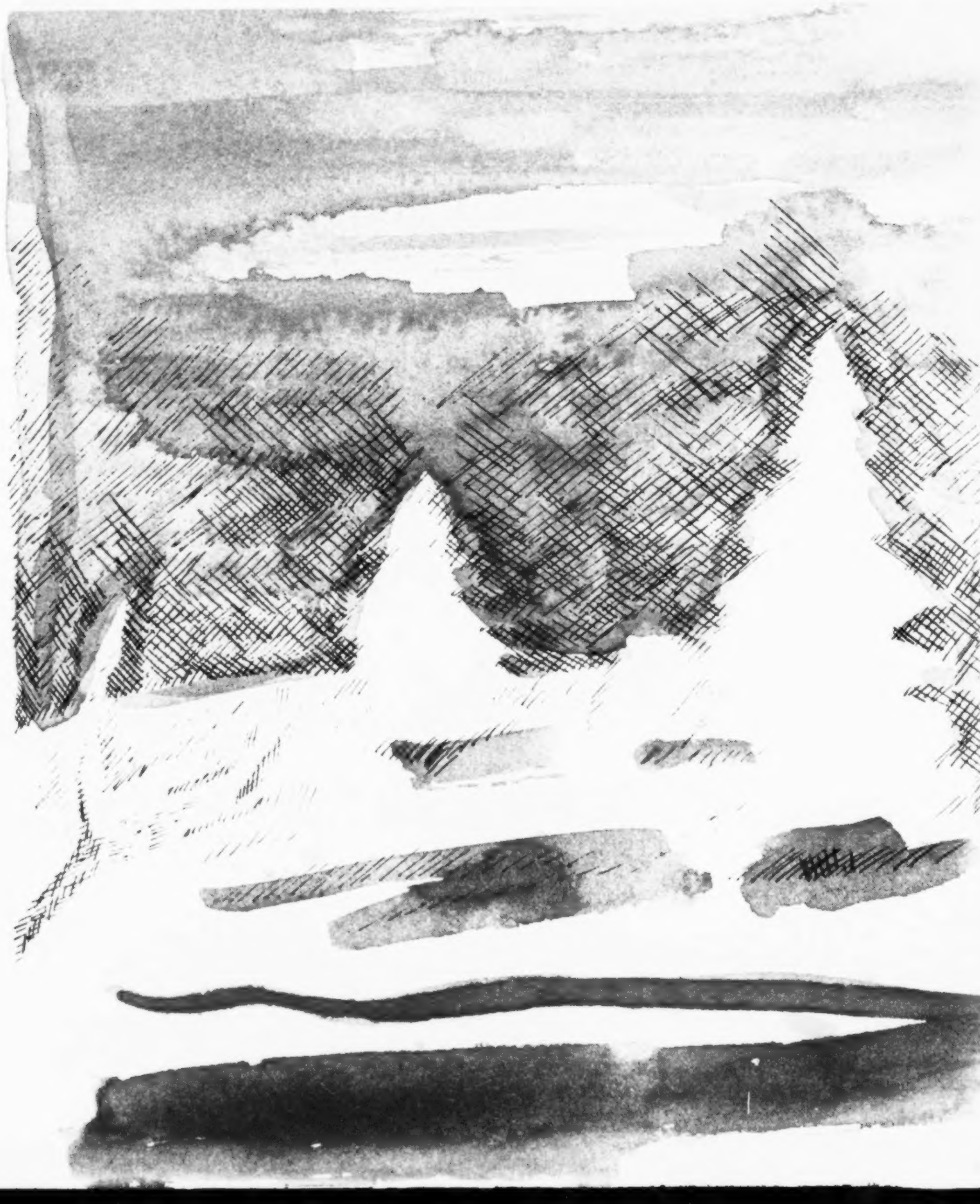
When this happens the sun does not travel overhead.



It travels low across
the southern skies.

The snow which falls during the winter melts rapidly on the southern slopes of mountains, and the ground dries out.

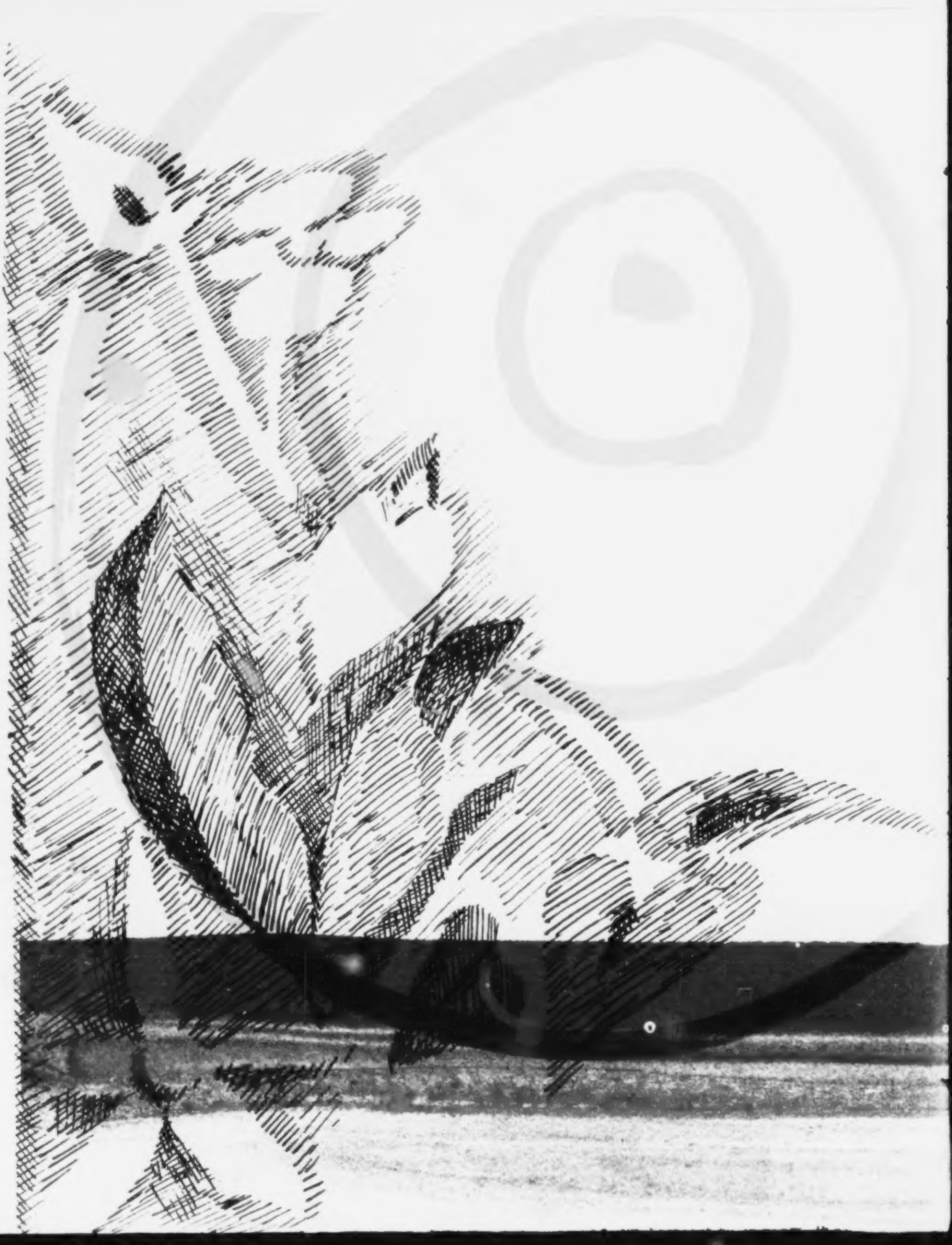
The sun cannot shine
on the northern slope,
so the snow gets deep.

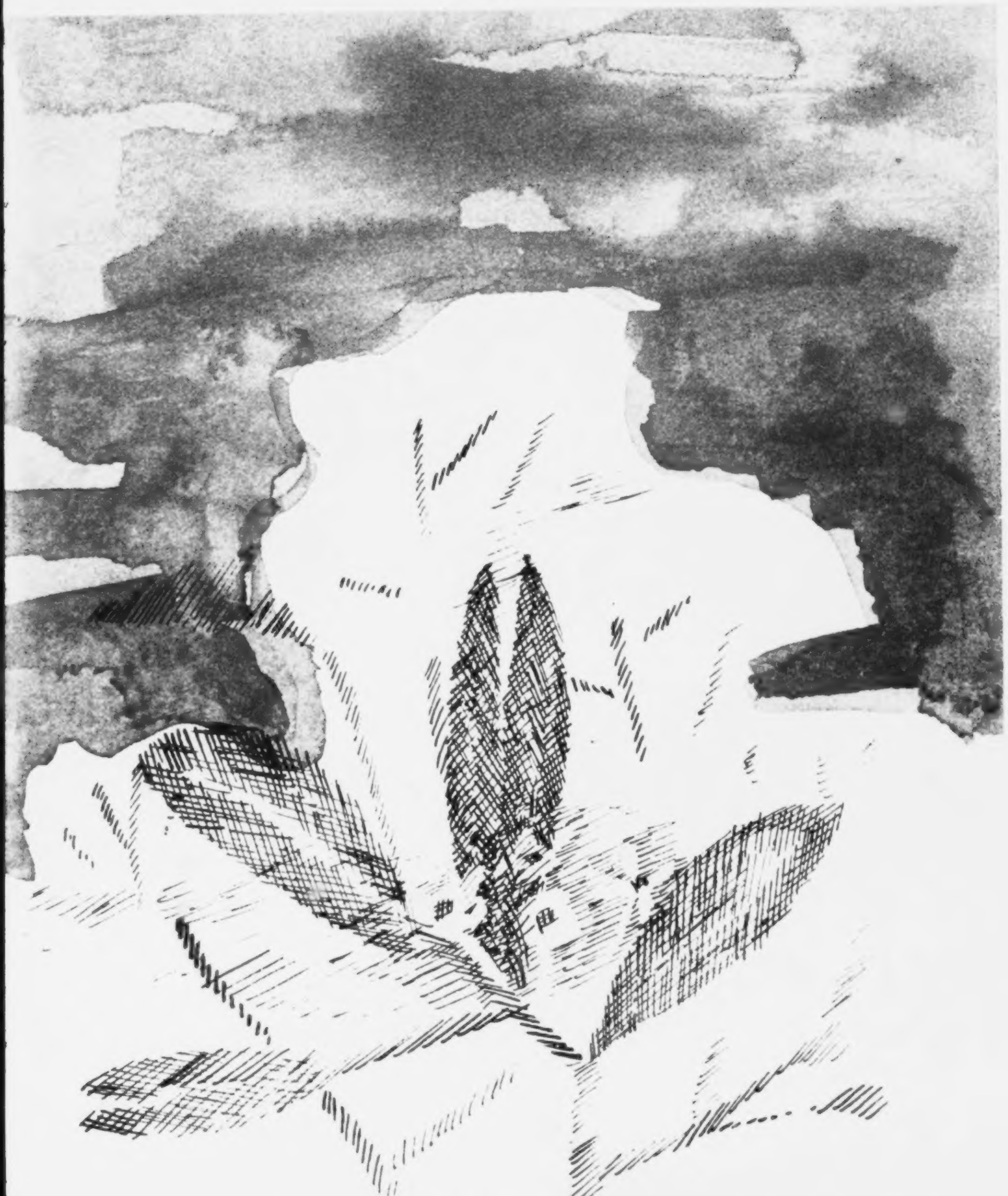


The deep snow stays long into spring and slowly melts.

Slow melting snow gives
moisture which grass
shrubs and trees need
during early summer.

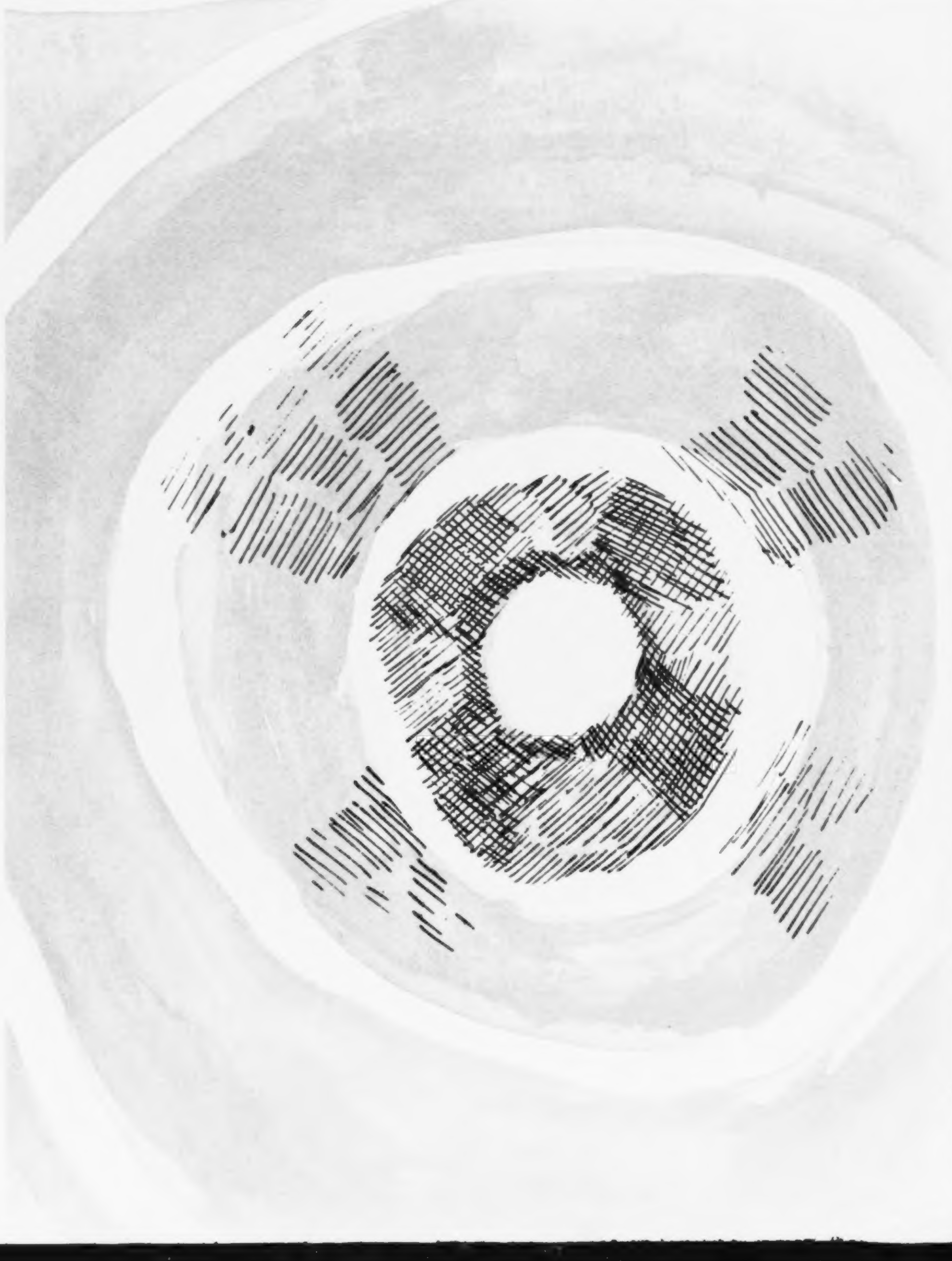
Leaves of these plants shade the ground so that the sun does not dry all the moisture from the soil.

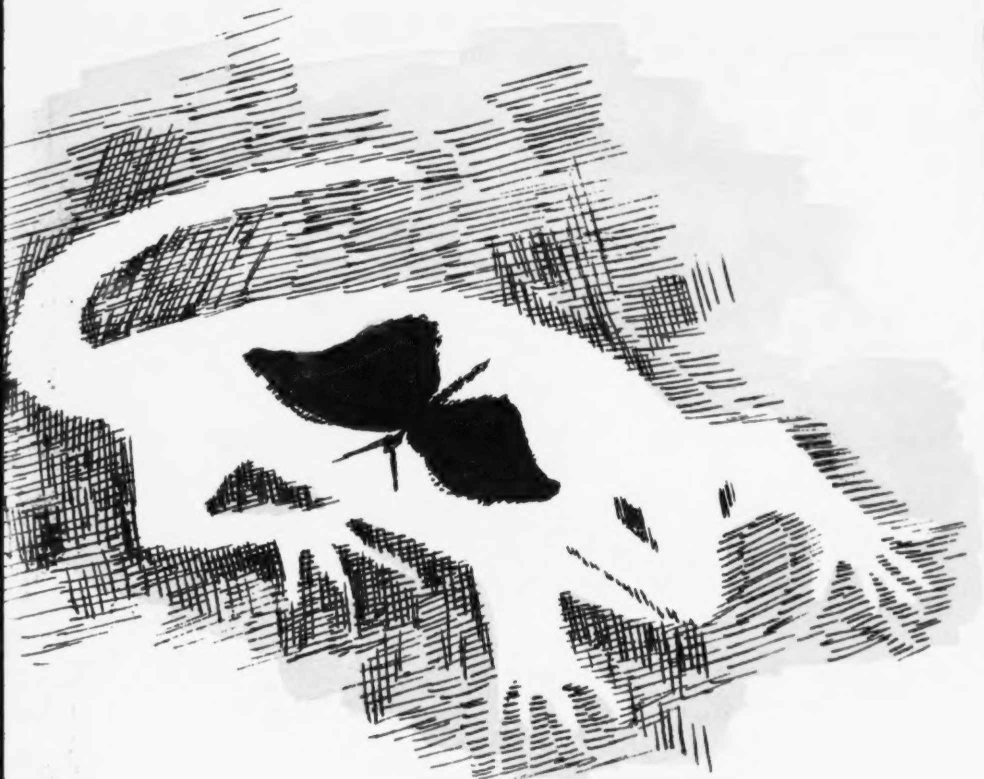




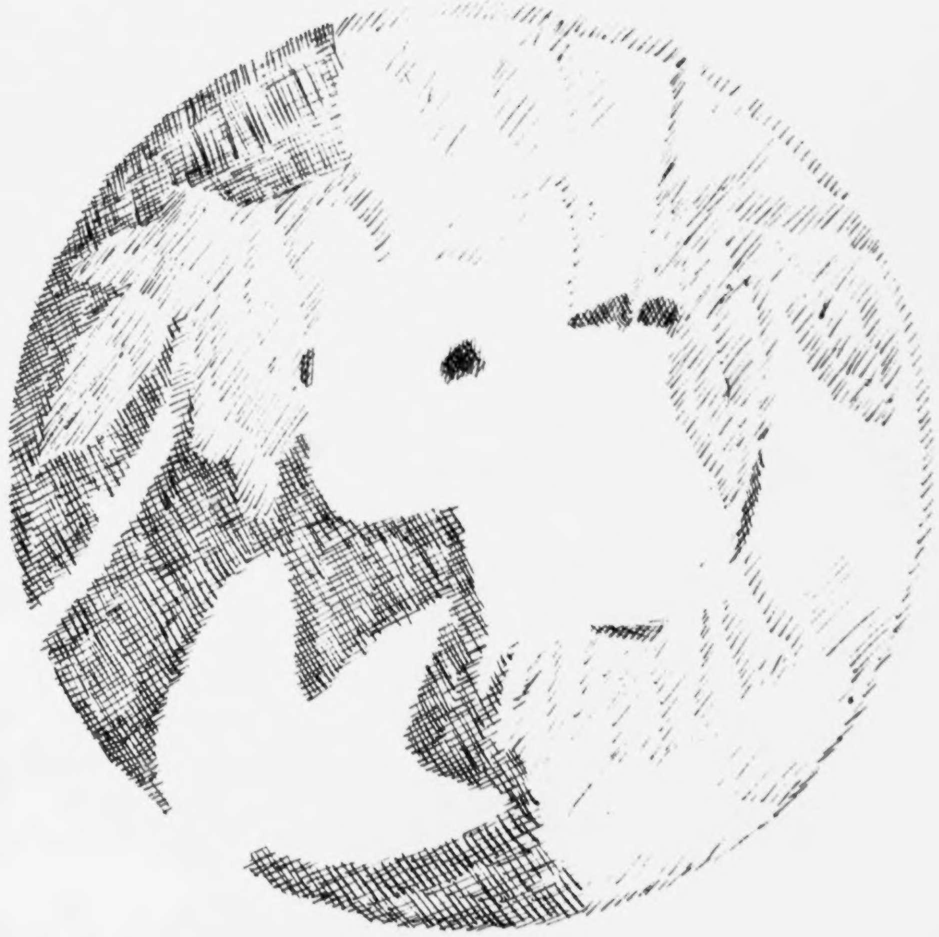
So it is that on the north side of mountains, many trees and shrubs grow, and it is cool.

The south side of the
same mountains has
few trees and shrubs
and is hot and dry.





Lizards need the hot sun to live because they are cold blooded animals, They live under rocks and eat insects.



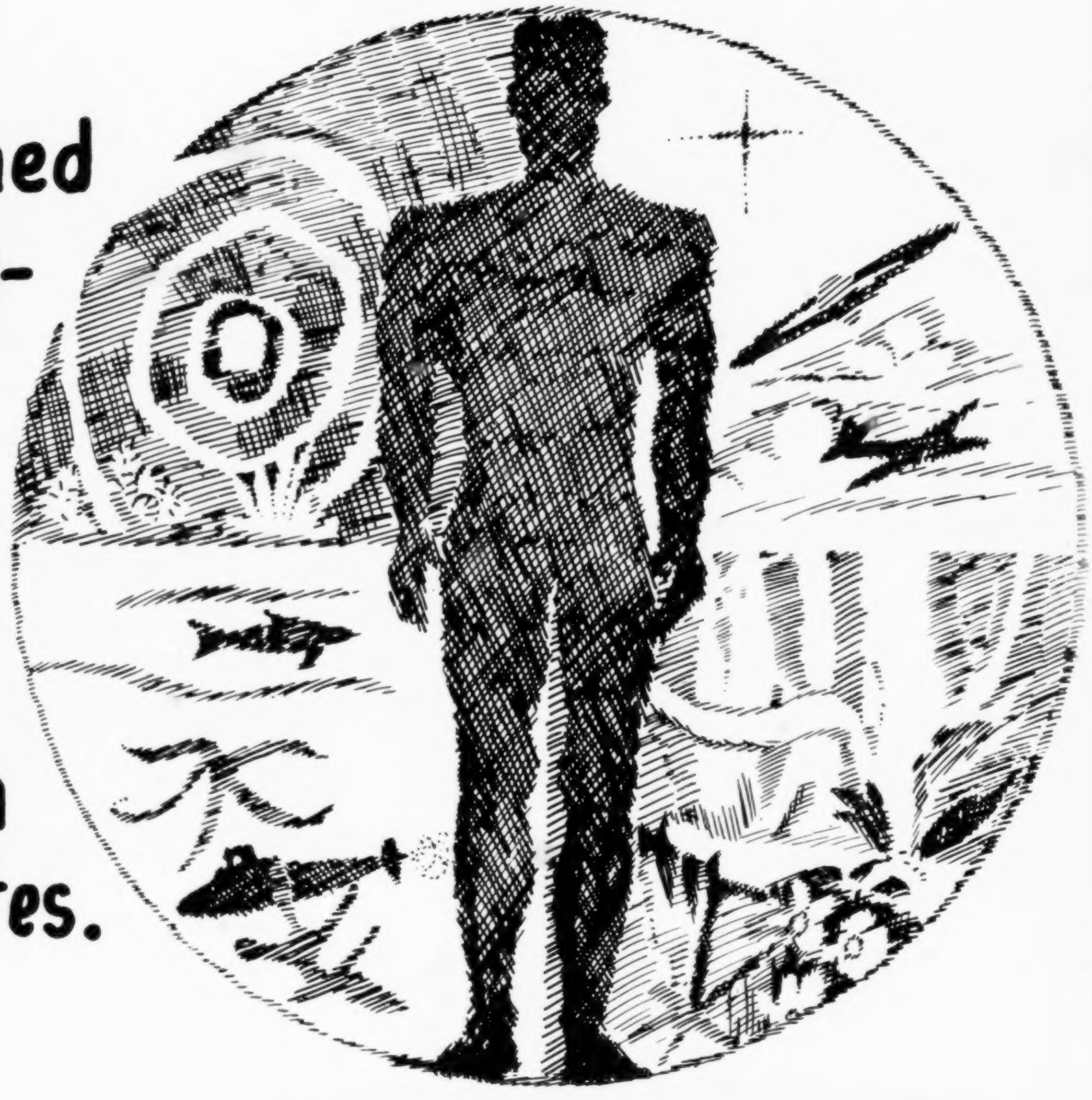
Squirrels need trees to make their homes in, and acorns, and pine nuts to eat.

Although both
live on the same mountain
they live in different
terrains and climate.

They eat different foods,
they need different
amounts of water to live.

Animals have learned to live best in certain places.

But man has learned how to live everywhere, in the sky, under water, in the mountains and the desert, in heat and freezing cold, and in wet and dry climates.



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Bureau of Indian Affairs
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By:

Abt Associates, Inc.
The Project NECESSITIES Staff of
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Animals, Climate, and Terrain
Was developed by the Project NECESSITIES
staff as part of a second grade unit
on interrelationships in the natural
environment.

The illustrations are by Jason Chee,
Project artist. Mr. Chee is
a member of the Navajo tribe.

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Appendix C

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Shageluk and Egegik

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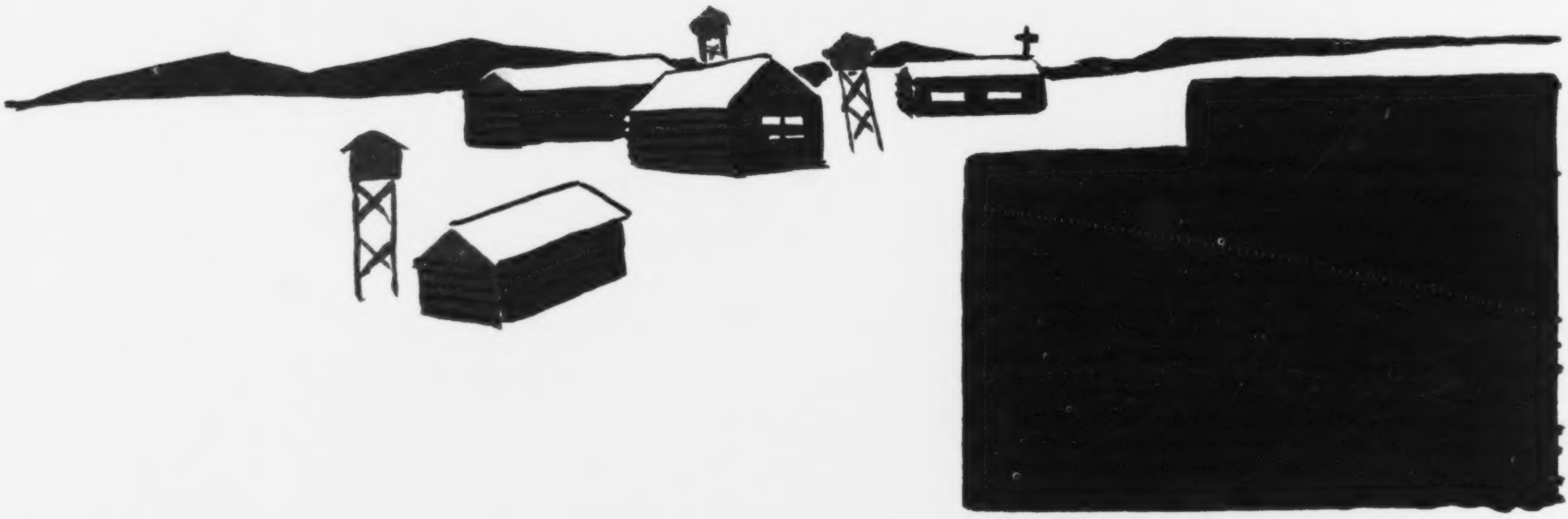
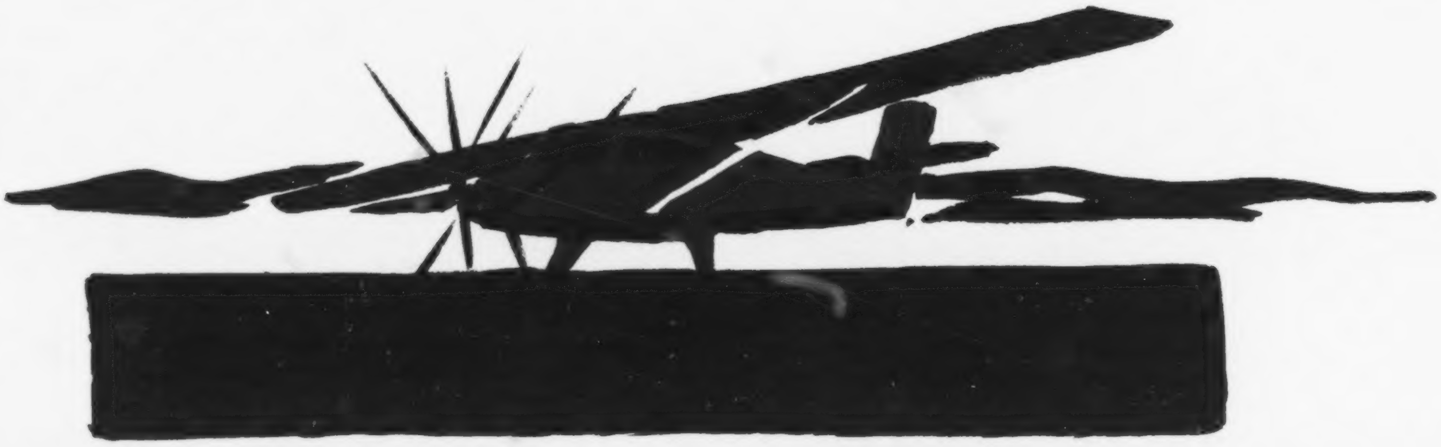
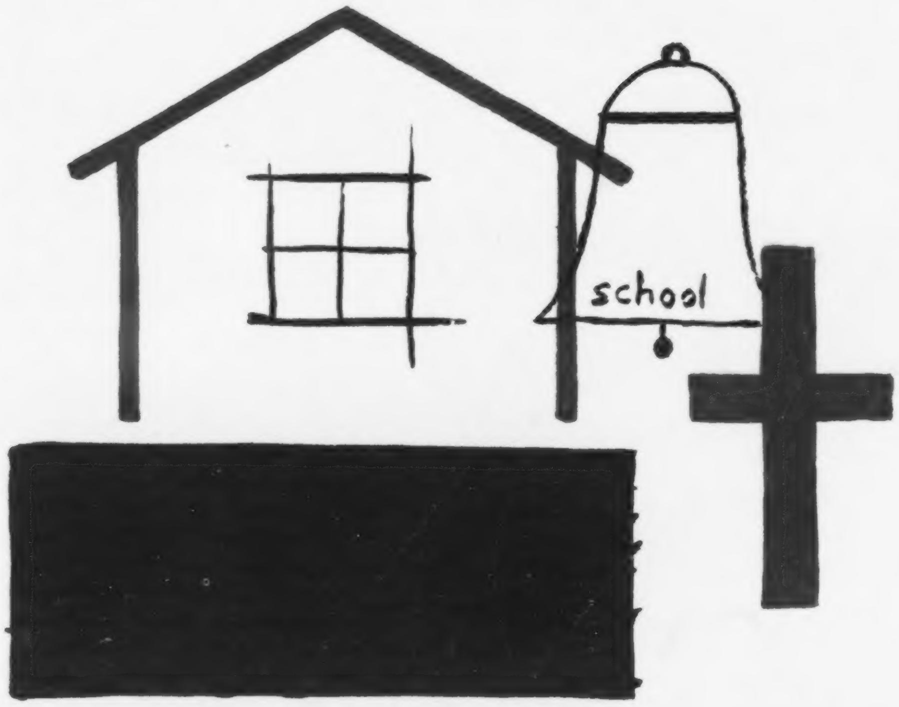
The village of Shageluk



There is a village in Alaska which is named Shageluk. This village is about 300 miles from any road.

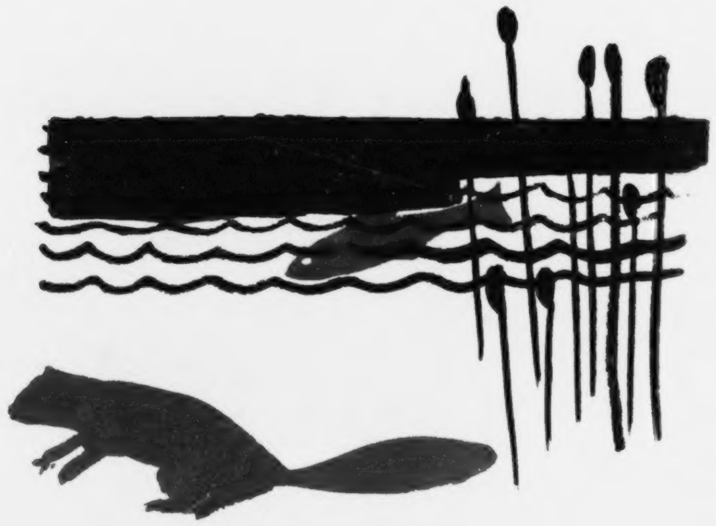


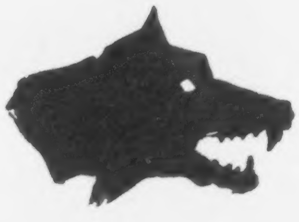
People get mail and supplies by boat or air plane.



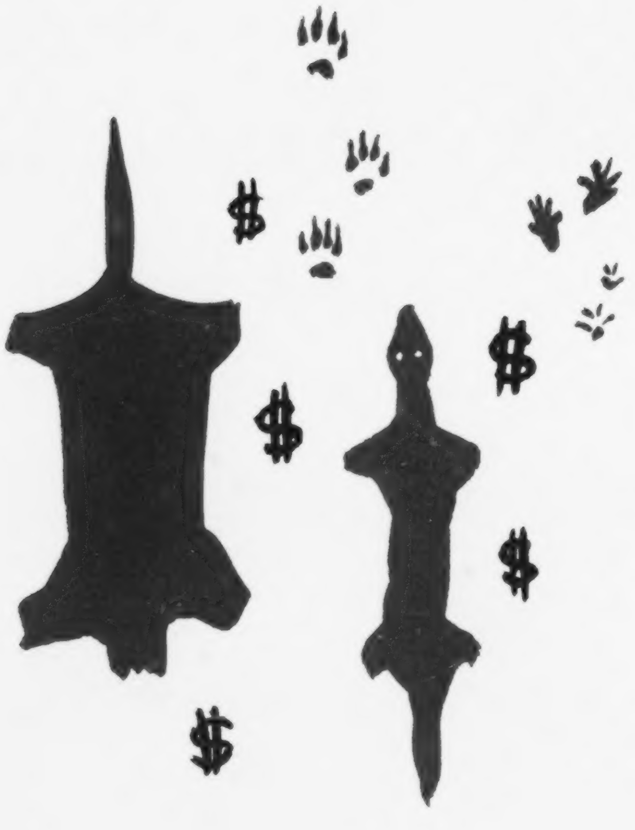
In the village are the homes of people, a school, and the place where the white missionary and his wife live.

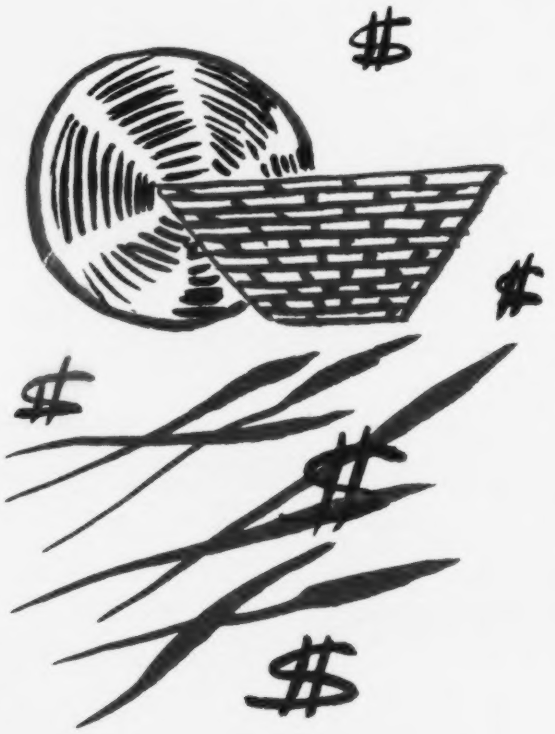
People of Shageluk live by hunting and fishing for food.



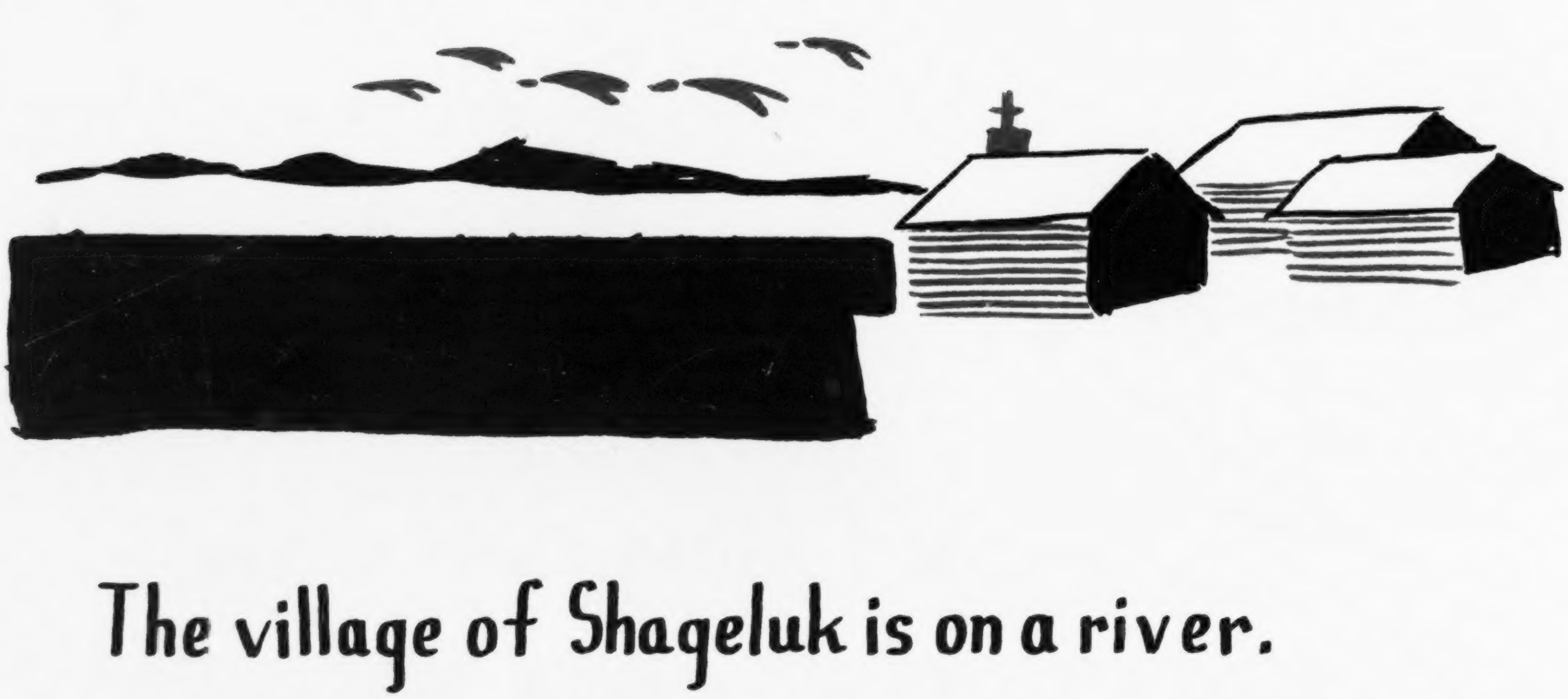


Men earn some money by selling furs of animals they have trapped.



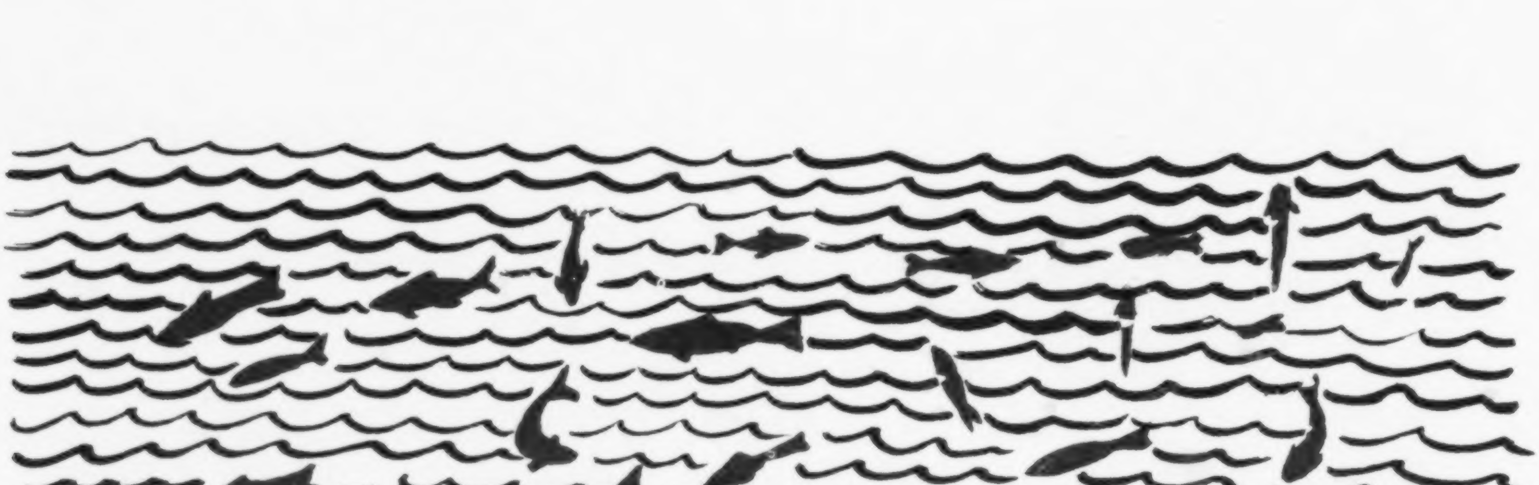


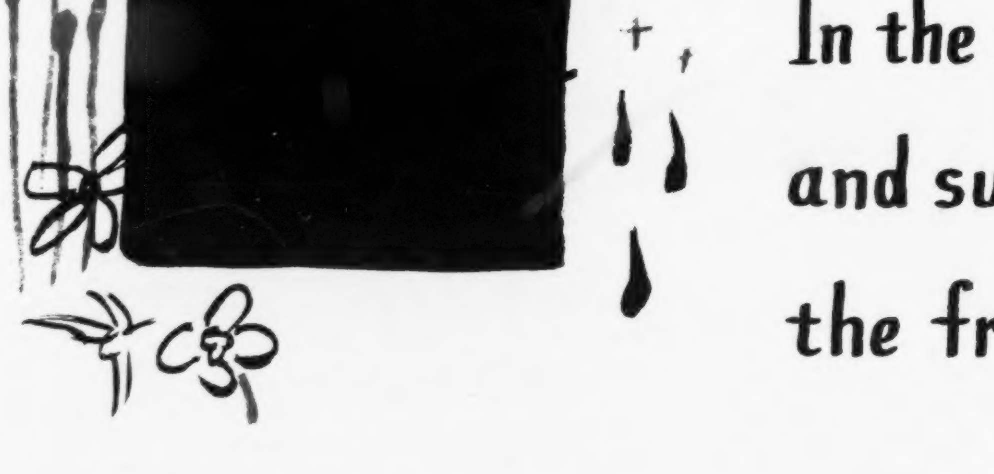
Women earn some money by making baskets out of grass, and selling them to the trading post.



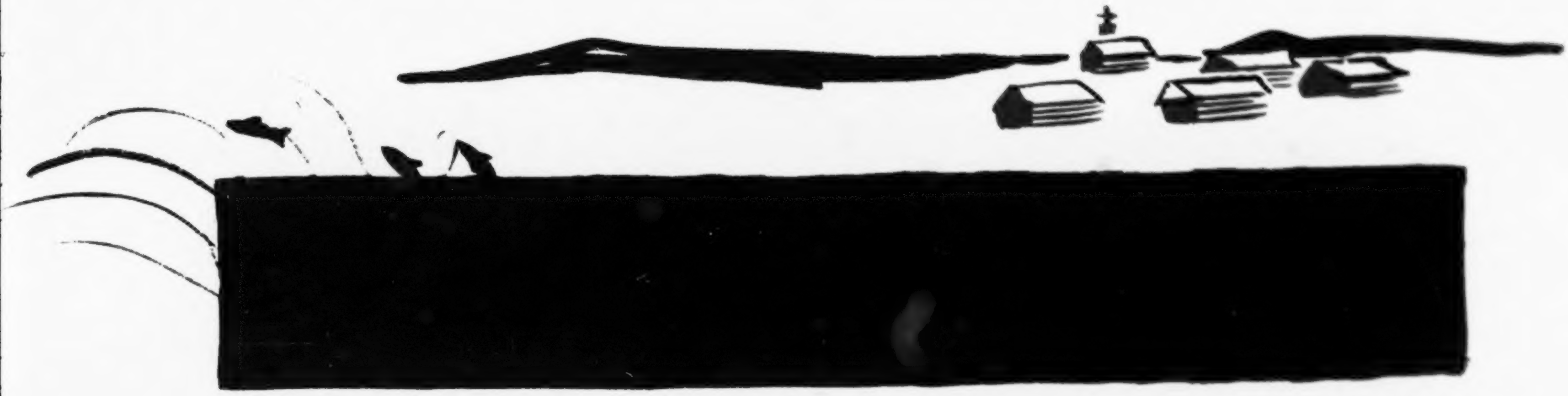
The village of Shageluk is on a river.

In the winter most of the fish in the river swim downstream.

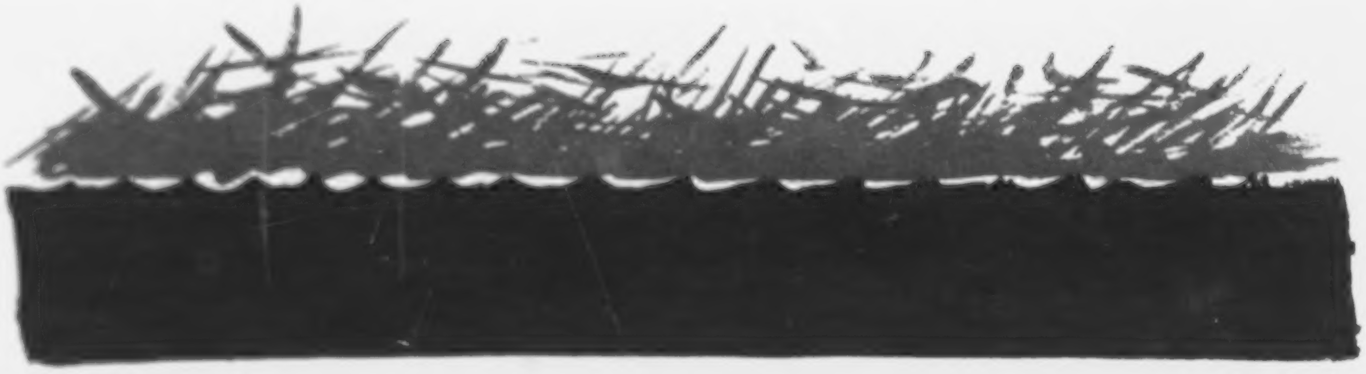




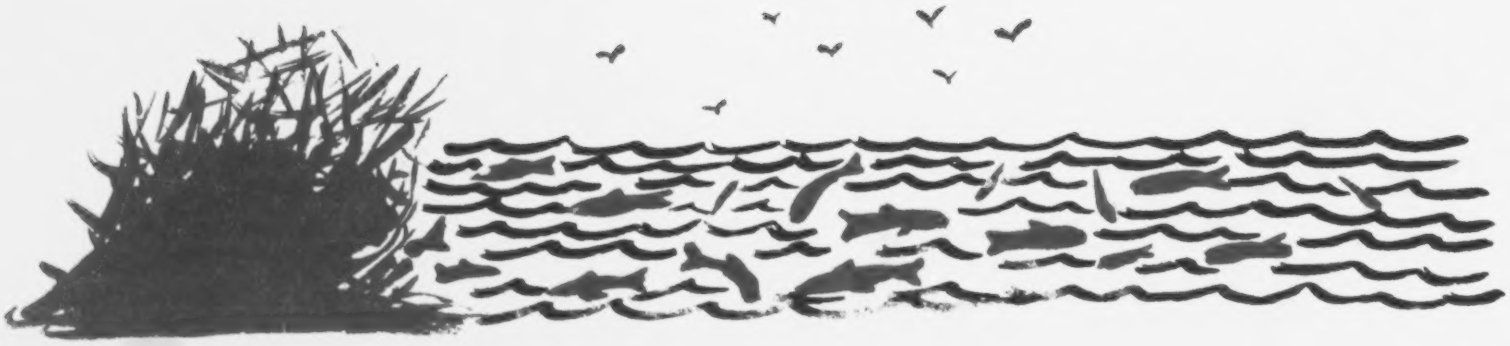
In the spring the warm air
and sun melt the ice on
the frozen river.



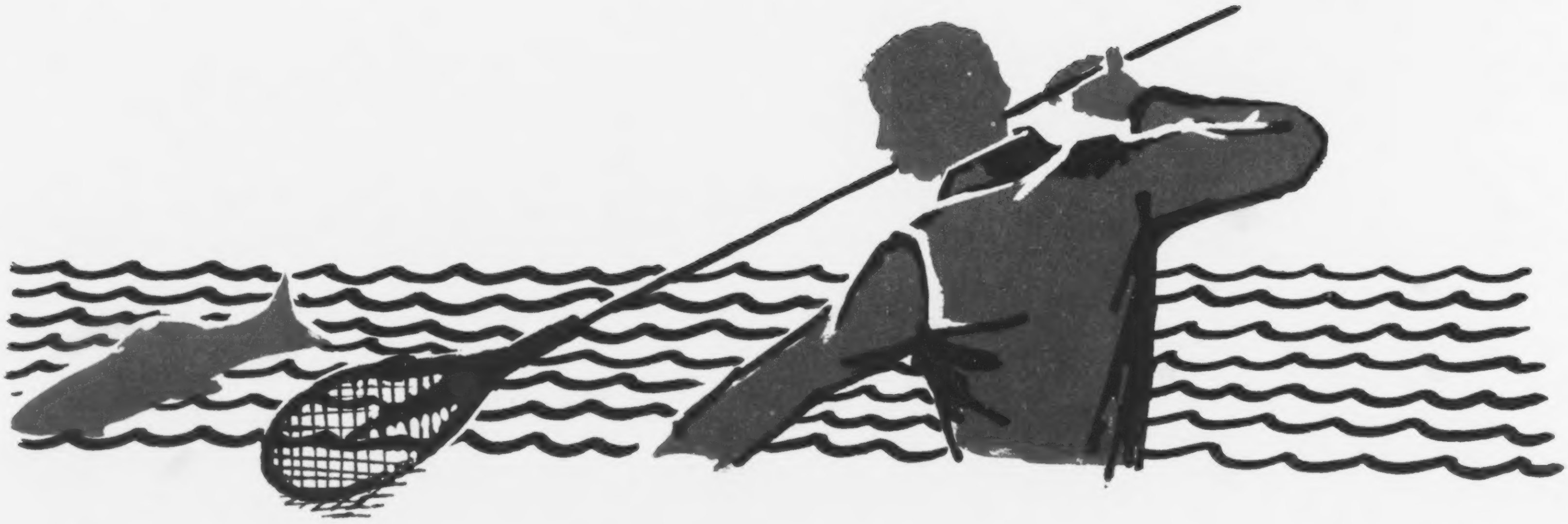
When this happens the water gets warm and the fish start to swim up the river and pass the village.



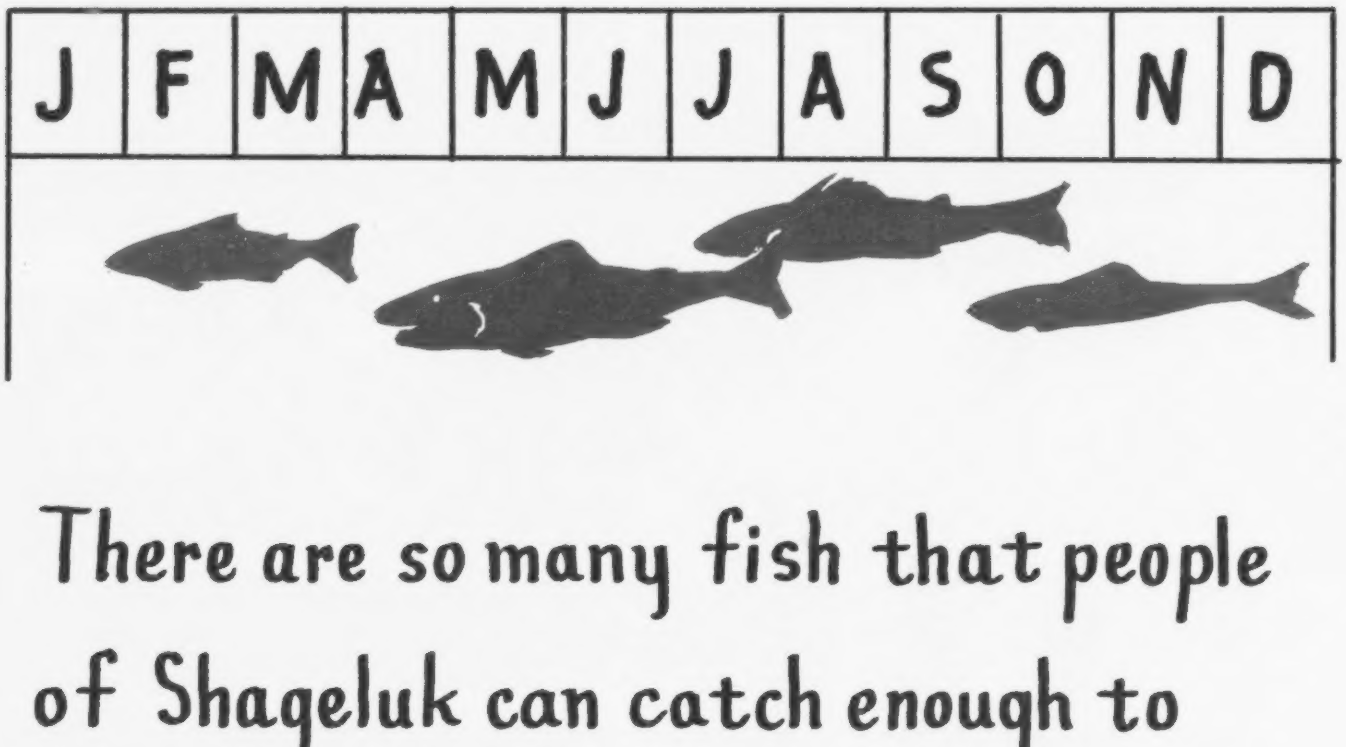
The people of Shageluk dam the river with small trees, shrubs, and willows.



Fish coming up the river have to stop to find a way to pass tangled branches.



Men, women and children spear and net fish that they will eat or feed to their sled dogs.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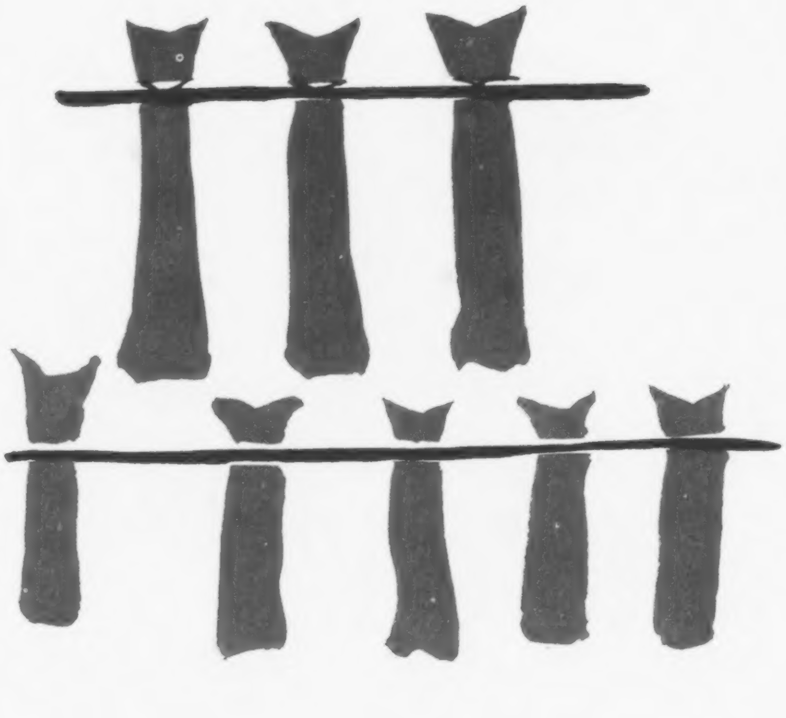
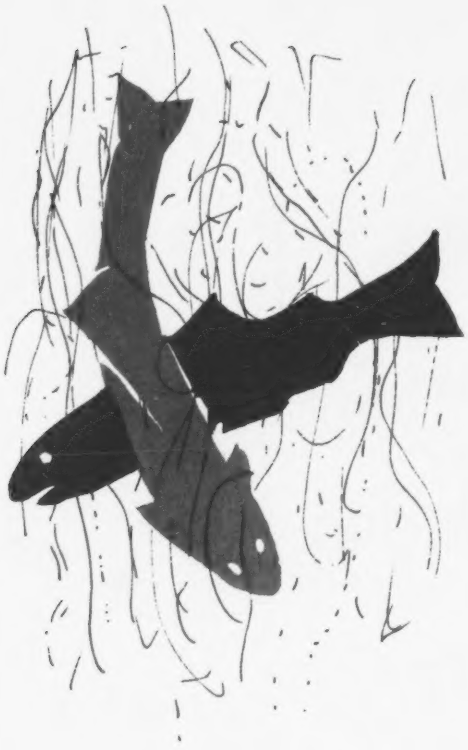
There are so many fish that people of Shageluk can catch enough to last the whole year.



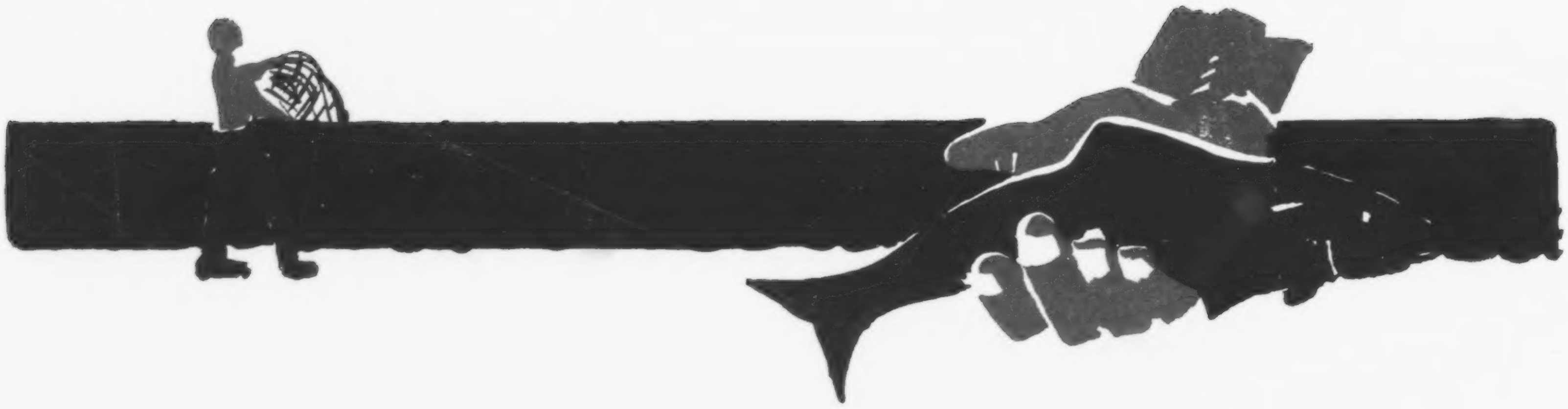
Most of the fish will
be split and hung on
racks to dry.



After a few days of drying they will be put into sheds filled with smoke from smoldering fires.

This smoke preserves the fish.

Since the people of Shageluk have
many sled dogs they must have
many fish to feed their dogs
during the long winter.

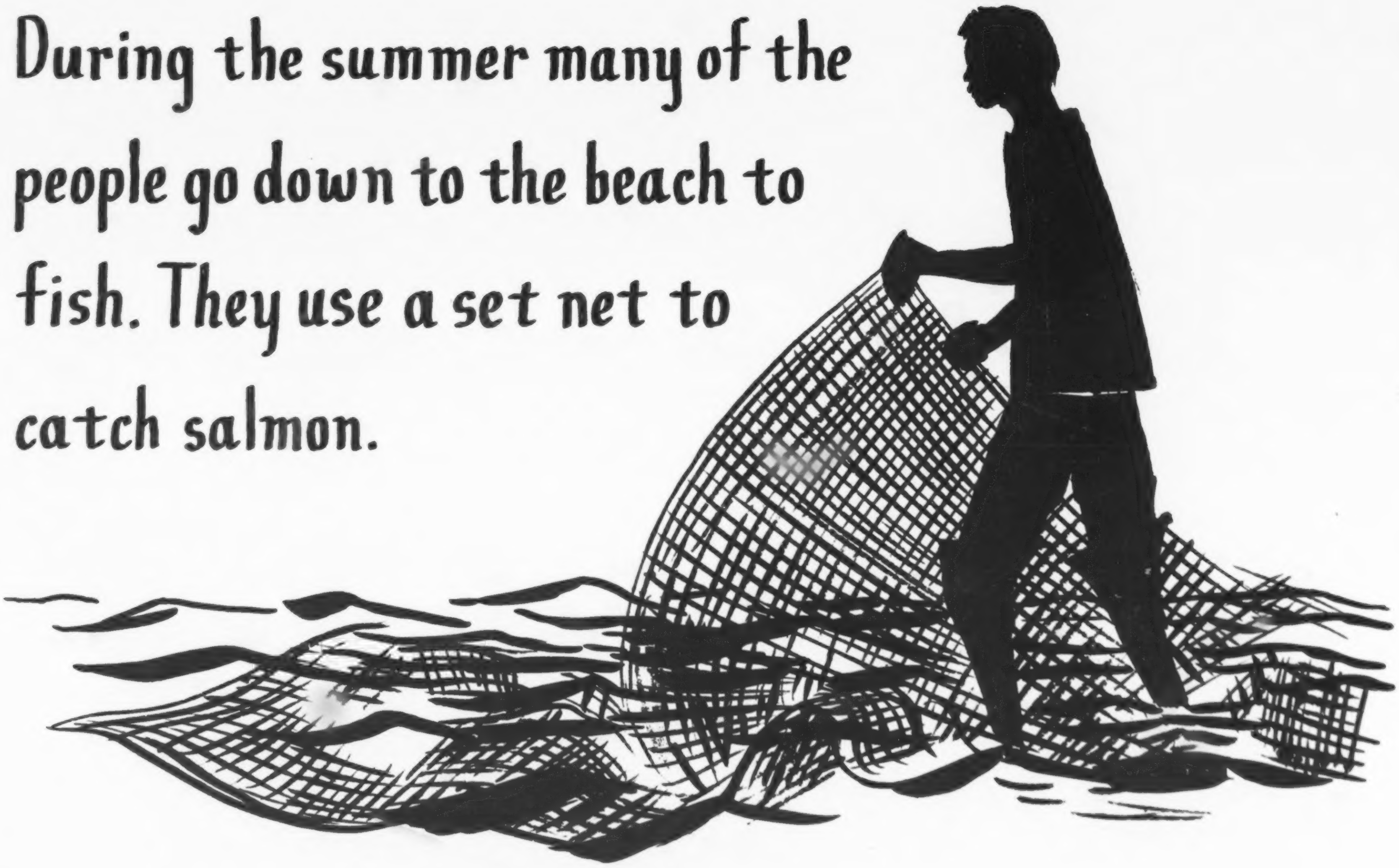


Fish have always been important to people of Shageluk. This is the way they have used fish for many, many years.

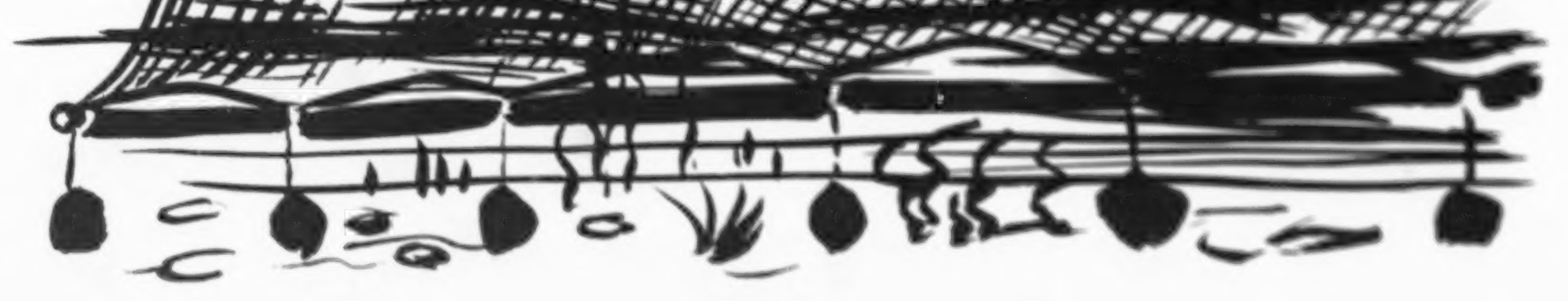
The village of Egegik

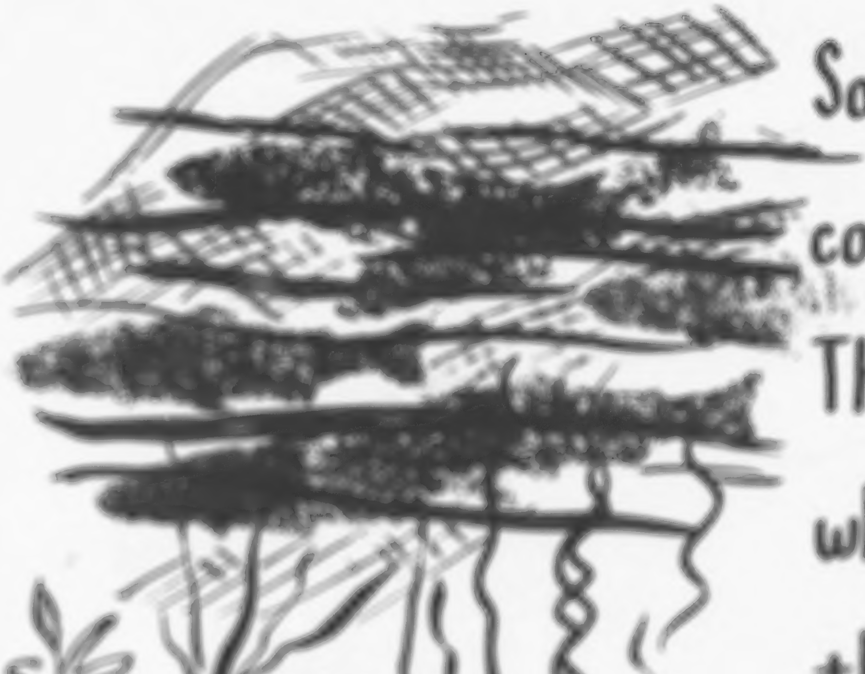
The village of Egegik is located on Bristol Bay in Alaska.

During the summer many of the people go down to the beach to fish. They use a set net to catch salmon.



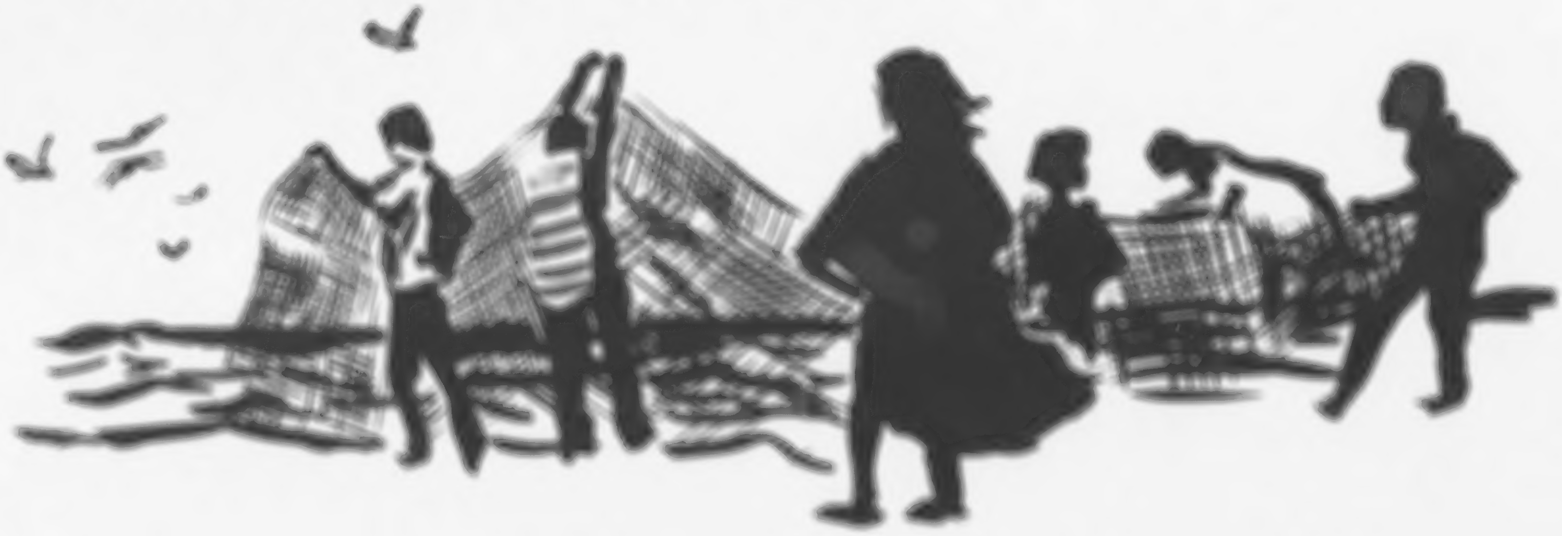
This is a dam of nylon net. One end is anchored on the beach. The rest of the net is allowed to float in the water.

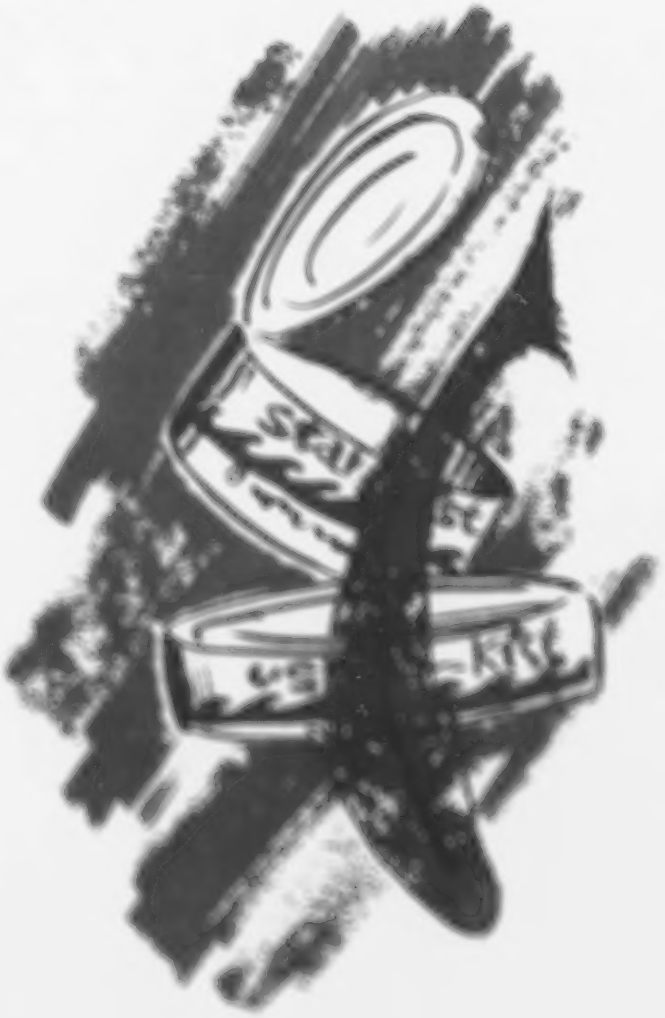




Salmon swimming along the coast run into the net. They are caught in the net which slips over the head of the salmon and behind the gills.

When the nets have many fish in them, the men, women, and children pick the salmon out of the nets.





Most of the salmon are sold to a cannery.

The fish that are sold to the cannery will be cleaned, put into cans, cooked and sold to people in other parts of the world.

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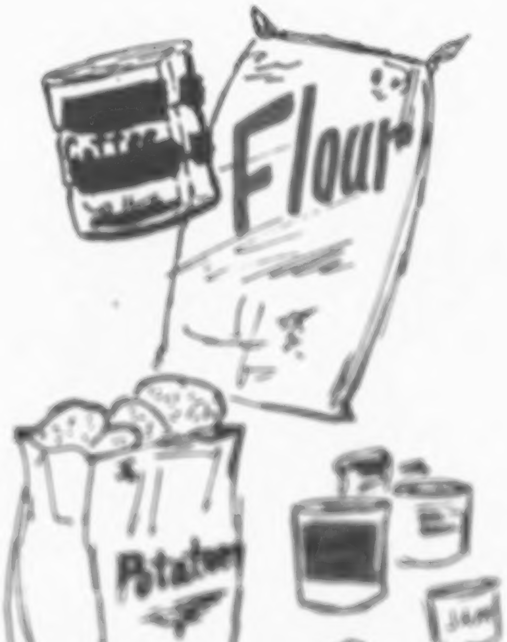
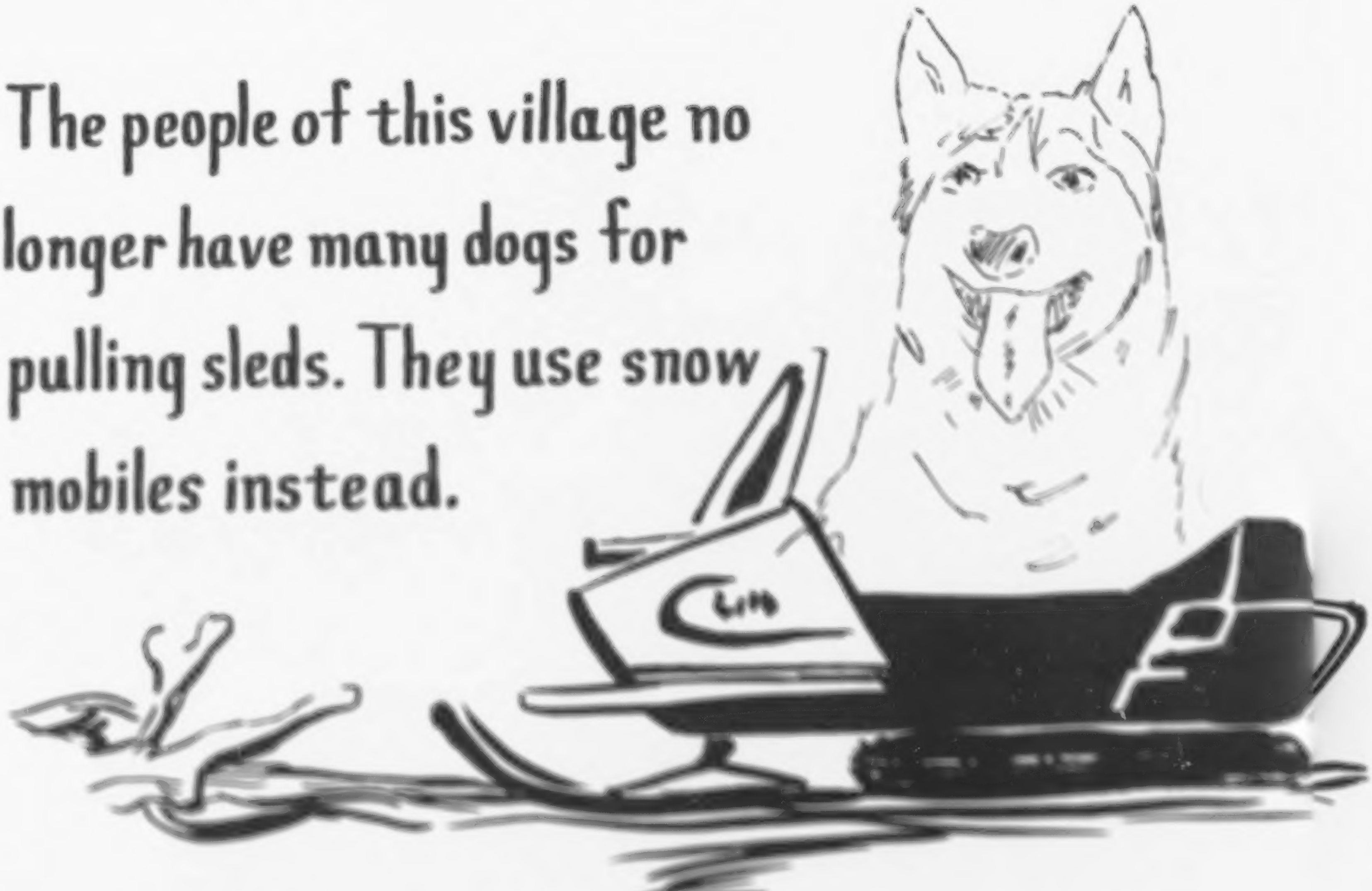
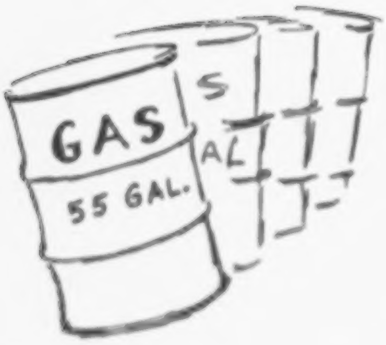
MEX


Flour
Potatoes
JAM

With the money they earn from selling salmon, the people of Egegik buy food, clothing and other things they need.

The people of this village no longer have many dogs for pulling sleds. They use snow mobiles instead.

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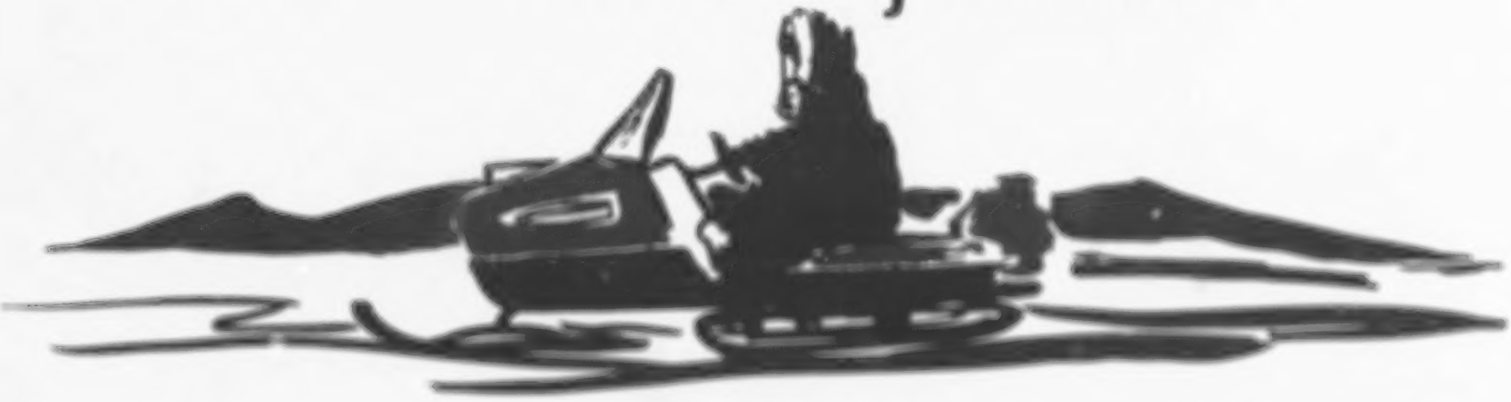
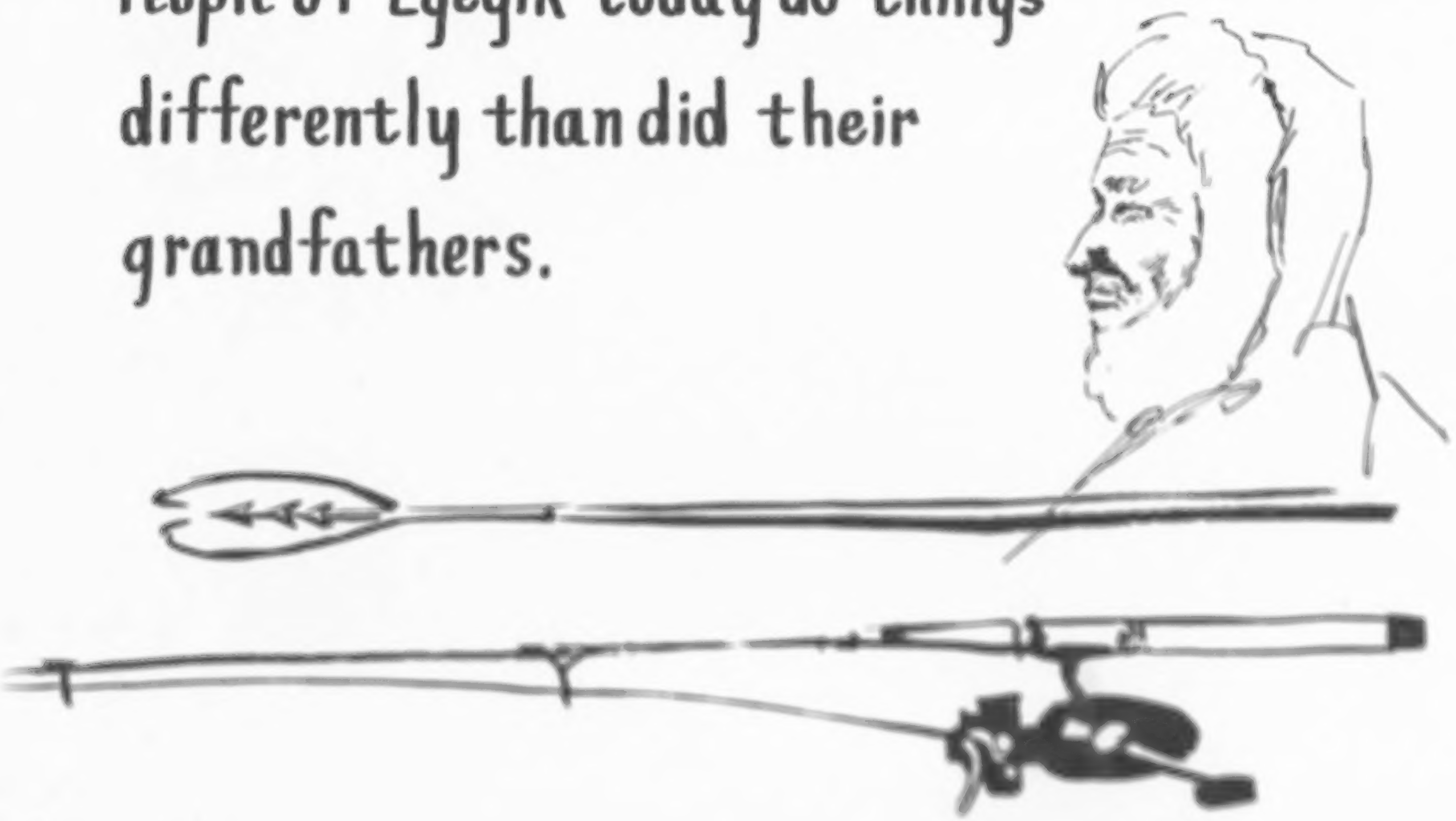
Snowmobiles don't eat fish, but they do drink gas. People pay for the gas with money earned from selling salmon.



People of Egegik today do things differently than did their grandfathers.



The story of the Alaskan villages of Shageluk and Egegik was developed by the staff of Project NECESSITIES. The story is illustrated by Jason Chee, the Project artist and illustrator. Mr. Chee is a member of the Navajo tribe.

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